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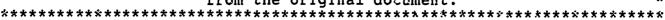
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ABSTRACT

This module, one in a series of performance-based teacher education learning packages, focuses on a specific skill that vocational educators need to create appropriate learning environments and to plan and manage instruction that is well-suited to the learning and psychological needs of today's adults. The purpose of the module is to help the teacher manage the adult instructional process effectively. Introductory material provides terminal and enabling objectives, a list of resources. and general information. The main portion of the module includes two learning experiences based on the enabling objectives: (1) identify instructional techniques and activities appropriate for use with adults and (2) critique case studies on modifying the learning environment for adult students. Each learning experience presents activities with information sheets, samples, worksheets, checklists, and self-checks with model answers. Optional activities are provided. Completion of these two learning experiences should lead to achievement of the terminal objective through the third and final learning experience that requires (1) an actual teaching situation in which to manage the adult instructional process, and (2) a teacher performance assessment by a resource person. An assessment form is included. (YLB)

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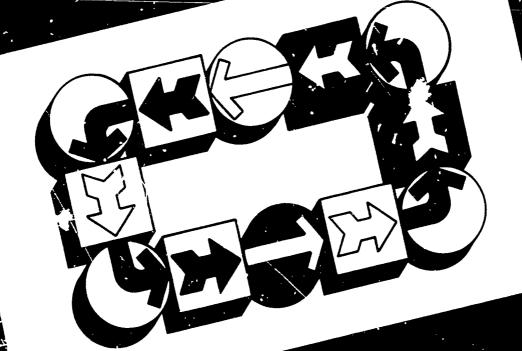
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Manage the Adult Instructional Process



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FOREWORL

This module is one of a series of over 130 performance-based teacher education (PBTE) leading packages focusing upon specific professional competencies of occupational instructors (teachers, trainers). The competencies upon which these modules are based were identified and verified through research as being imponant to successful teaching. The modules are suitable for the preparation of instructors in all occupational areas.

Each inodule provides learning experiences that integrate theory and application, each culminates with enterion-referenced assessment of the instructor's performance of the specified competericy. The materials are designed for use by teachers-in-training working individually or in groups under the direction and with the assistance of teacher educators or others qualified to act as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice instructors, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by local education agencies, postsecondary institutions, state departments of education, universities and colleges, and others responsible for the professional development of instructors

The PBTE modules in Category N—Teaching Adults—are designed to enable adult ins suctors to create appropriate learning environments and to plan and manage instruction that is well suited to the learning and psychological needs of today's adults. The modules are based upon 50 competencies identified and verified as unique and important to the instruction of adults.

Many individuals have contributed to the research, development, field review, and revision of these training materials. Appreciation is extended to the following individuals who, as members of the DACUM analysis panel, assisted National Center staff in the identification of the competency statements upon which this category of modules is based: Doe Hentschel, State University of New York at Brockport; David Holmes, Consortium of the

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Robert E. Taylor Executive Director The National Center for Research in Vocational Education



The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy
- Installing educational programs and products
- Operating information systems and services.
- Conducting leadership development and training programs



AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS

The National Institute for Instructional Materials 120 Driftmier Engineering Center Athens, Georgia 30602

The American Association for Vocational Instructional Materials (AAVIM) is a nonprofit national institute.

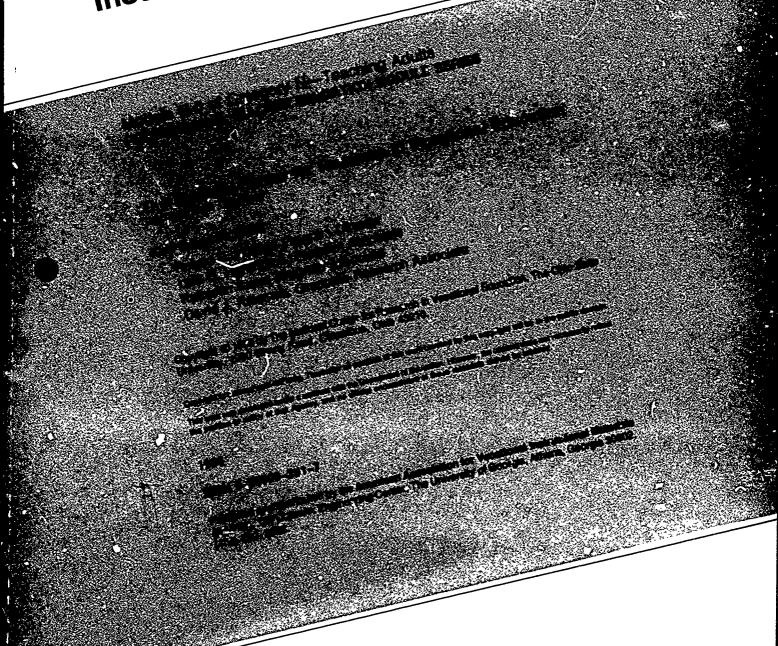
The institute is a cooperative effort of universities, colleges and divisions of vocational and technical education in the United States and Canada to provide for excellence in instructional materials.

Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.





Manage the Adult Instructional Process





INTRODUCTION

It's your first time before a class of adult learners. Most of them are as old as or older than you. You can sea a lot of experience, a little trepidation, some pretty high expectations, and signs of some very complicated lives shining out of their eyes. It's both exciting and challenging.

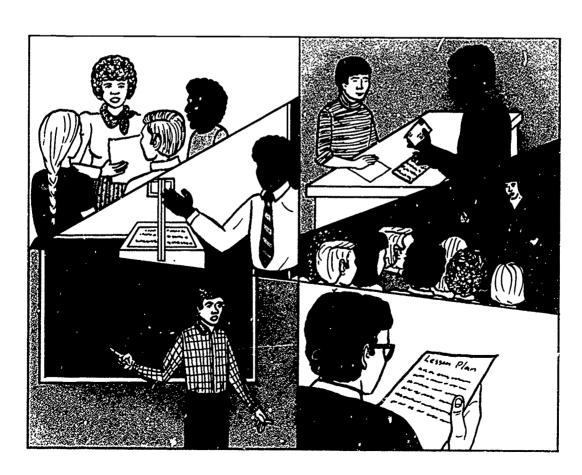
How are you going to relate to these learners? Establish rapport? Create a comfortable atmosphere that is conducive to learning? How will you help them develop confidence in themselves as learners? How will you encourage them to take an active part in the learning activities and to assume responsibility for meeting their own educational goals?

What instructional techniques will you use? How will you ensure that your techniques and materials meet their individual needs? At the same time, what will it take to get them functioning as a group, not just as individuals with individual needs?

What other needs or problems could interfere with their getting the most out of your instruction? And what is your role in helping them deal with their difficulties? All these questions—about techniques, rapport, atmosphere, and individual and group needs—relate to the instructional process. The selection and use of instructional techniques, of course, is a key part of that process. Many of the techniques you will use with adult learners are the same as for learners at any age. And, as with other age groups, the instructional process requires more than putting together a "casserole" of instructional techniques.

In managing the instructional process, you must consider not just what instructional techniques you will use, but all aspects of the instructional environment, including the psychological, physical, and intellectual aspects. Instruction must be a unified, coherent process, which is carefully planned and carried out with the characteristics and needs of adult learners in mind.

This module is designed to help you manage the adult instructional process effectively. First, it provides an overview of a wide range of instructional techniques. Then, it focuses on specific instructional strategies and ways of modifying the learning environment that are particularly effective with adults.





ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual teaching situation manage the adult instructional process. Your performance will be assessed by your resource person using the Teacher Performance Assessment Form; pp. 43–44 (Learning Experience III)

Enabling Objectives:

- After completing the required reading, identify instructional techniques and activities appropriate for use in adult instructional situations described in given case situations (Learning Experience I).
- After completing the required reading, critique the performance of the instructors described in given case studies in modifying the learning environment for adult learners (Learning Experience II).

Prerequisites

To complete this module, you must have knowledge of the characteristics of adult learners and the process of adult development. If you do not already meet this requirement, meet with your resource person to determine what method you will use to do so. One option is to complete the information and practice activities in the following module:

• Prepare to Work with Adult Learners, Module N-1

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I

Optional

References: The National Center for Research in Vocational Education. Professional Teacher Education Module Series; Category C: Instructional Execution (29 modules). Athens, GA: American Association for Vocational Instructional Materials, 1977–85.

Reference: Current Index to Journals in Education through which you can locate journal articles relating to the use of specific instructional techniques with adults.

A group of peers to participate in a seminar in which you can practice using various instructional techniques.

Learning Experience II

Optional

A classroom that you can visit to observe instructional techniques being used with adults.

Learning Experience III

Required

An actual teaching situation in which you can manage the adult instructional process.

A resource person to evaluate your competency in managing the adult instructional process.

General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center's PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher/trainer education programs, you may wish to refer to three related documents:

The Student Guide to Using Performance-Based Teacher Education Materials is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

The Resource Person Guide to Using Performance-Based Teacher Education Materials can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules It also includes lists of all the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

The Guide to the Implementation of Performance-Based Teacher Education is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of action.



Learning Experience I

OVECVIEW



After completing the required reading identify instructional techniques and activities appropriate for use in adult instructional situations described in given case situations.



You will be reading the information sheet; Varying Your Instructional Techniques, pp. 7-16.



To gain skill in using particular instructional techniques, you may wish to refer to one cramore of the PBTE modules in Category C. Instructional Execution



Yourmay wish to review the Current Index to Journals in Edination in order to locate journal articles relating to the use of specific instructional techniques with adult learners:



You may wish to use various instructional techniques in a seminar-type situation with peers.



You will be reading the Case Situations, pp. 18–20, and identifying instructional techniques and activities appropriate for use in each adult instructional situation described:





Tou sell be evaluating your competency in identifying instructional techniques and activities appropriate for use in adult instructional situations by comparate your activities width the Model Responses; pp. 21–22.



A key factor in meeting the needs of adult learners is providing a variety of instructional techniques. For a review of some of the many techniques that can be used with adults, read the following information sheet.

VARYING YOUR INSTRUCTIONAL TECHNIQUES

The instructional techniques used with adults are, in large part, the same as those used with younger students. And, just as a good teacher of younger students varies the techniques used, so must you as a good teacher of adults.

The point is, however, that with adult students, variety is critical. Younger students bring a wide range of abilities, talents, interests, and experiences to the learning situation; adults may bring an even wider range. They may have widely varying goals and expectations. They may have physiological characteristics (e.g., hearing loss or visual impairment) you will need to consider. And if they are to remain in the program, they will expect the program to satisfy their needs, not only in terms of content but also in terms of instructional approach.

You will need to provide variety in two ways: (1) vary the instructional techniques and resources you use and (2) offer alternatives from which learners can choose. Adults need to be allowed to decide for themselves how they will learn or practice some of the course content. This does more than provide variety. It gives them some control in tailoring the instructional process to meet their learning needs.

Of course, not every adult is ready to take control right away. Some adults come to the classroom motivated, self-directed, and eager. Others may be unsure and might need to be encouraged, bolstered, and prodded. You will need to be sensitive to learners' needs and help them work toward assuming more of a decision-making role.

The following are some of the ways in which you can provide variety in the learning activities you offer:

- Grouping—Provide opportunities for largegroup and small-group interaction and for individual study.
- Learning modality—To address their different learning modality preferences, offer learners the chance to acquire knowledge and skill through different senses. Include hearing (auditory); seeing, watching, examining, reading (visual); and hands-on activities (tactile).
- Study skills—Include opportunities to apply such skills as reading, writing, observing, listening, speaking, collecting, memorizing, practicing, problem solving, making/doing, and constructing/creating.
- Types of assignments—Provide in-class and outside assignments, supervised and independent study, and paper-and-pencil work and applied performance.
- Levels of conceptual skill—Plan activities in which students need to make inferences, draw conclusions, reason, analyze, consider different perspectives, organize and express ideas, and apply knowledge in a different context.
- Learner and teacher roles—Set up activities in which the students are learning from you, learning from their peers, teaching their peers, teaching you, or functioning as a member of a team. Likewise, vary your own role as information giver, facilitator, resource person, or learner.

Instructional Techniques: An Overview

In this section are presented some of the many instructional techniques and resources that you can use to provide variety in teaching adults. As you review these techniques, it is important to keep a few points in mind.

The first relates to educational setting and the terminology used to describe it. The teaching of adults takes place in many different settings: schools, business offices, laboratories, factories, branches of the YMCA, and community centers, to name only a few. Adults may be learning technical or management skills on company time, preparing for advancement or career change on their own time, or simply broadening their horizons. To accommodate and discuss such a wide range of possibilities, it is necessary to settle on a few key terms and define them broadly.

Therefore, the term *classroom* in this module refers to all the places where instruction may take



place, from classroom to storefront to plant floor of a factory. The term organization refers to the entity that is offering instruction, it may be a school, a business, an industry, a county program, or another type of organization. The term administrator refers to the people who manage the business of education or training: principals, deans, supervisors, training directors, and others.

The second point relates to **flexibility**. Every teaching situation is different. You may be teaching in a program in which instructors have a great deal of freedom to mold the curriculum to the needs of the learners. Or, at the other extreme, your situation may be one in which the curriculum is rigidly set, because of organizational policy or occupational standards. Most likely, your degree of flexibility falls somewhere between these two extremes. You will need to determine how you can best provide instructional variety within the confines of your own situation.

The final point relates to **brevity**. The descriptions that follow are intentionally brief. They are intended to provide an overview of the wide range of techniques and resources that are available to you. Detailed information related to each technique is available in many other educational texts, as well as in other modules in the PBTE series.

Oral Presentations

When one speaks of oral presentation, the old standby "lecturing" comes to mind. However, oral presentations can take numerous forms, and there are many ways to make them interesting and effective. In most cases, effective presentations are not strictly oral, but are supplemented through some other modality, often visual. Oral presentations may be formal or informal, given to a group or to an individual, and used in various settings. An oral presentation is not always given by the teacher. At times it may be given by a guest speaker, a field trip guide, or a student.

illustrated talk. This kind of presentation may be given formally—standing in front of the class and serving as a dispenser of information—or informally—perhaps sitting around in a group, encouraging the students' participation. The size of the group and the students' familiarity with the topic often affect the degree of formality, although with an adult group, an informal approach is often most effective.



Key points in the talk may be illustrated both orally and visually. The following are common means of giving verbal and visual illustrations:

Verbal

- Analogies
- Frames of reference
- Anecdotes
- Examples

Visual

- Chalkboard
- Flannel board
- Flip chart
- Graphics
- · Listing, diagramming
- Audiovisuals

Illustrateu talks are most effective when they are carefully structured with an introduction, key points, and summary. They should be suited to students' level of understanding, the nature of the material, the group size, and your teaching style. Finally, they should provide an opportunity for student feedback.

Demonstration. Although demonstration could be categorized as a visual technique, it must necessarily be both visual and oral to be effective. The oral part of a demonstration gives it structure and drives home the point that the visual part is intended to make.



You can demonstrate a manipulative skill (e.g., loading a camera), a concept (e.g., matric equivalence), or a principle (e.g., Boyle's law). All take careful planning and preparation and should include the following:

- Verbal introduction
 - What will be demonstrated
 - How it relates to past experience and to future activities
 - · Definitions of new terms
 - Motivational material
- Explanation of each step as it is performed
- Comments on key points and safety practices
- Summary of the material that has been presented

The class members are asked key questions during the demonstration and are encouraged to ask their own questions for clarification. The summary may take the form of a hands-on activity. For example, you may ask a learner to perform an operation while you narrate and then ask another learner to perform and narrate his or her own performance.

Demonstration is a very useful technique in occupational education if the group size and room setup permit everyone to see and hear clearly. A well-presented demonstration can also be videotaped for future use.

Oral questioning. This technique consists of posing questions to the class during a lesson. You can use oral questioning in conjunction with many other instructional techniques (e.g., demonstration, group discussion, illustrated talk, and project work), and it can serve a variety of purposes:

- Motivating learners to participate in a discussion
- Providing opportunities for learners to practice self-expression
- Stimulating thinking and reasoning skills
- Allowing you to discover the abilities and interests of the individuals in the class and to learn from the students
- Providing information about learners' progress

Questions can be designed so that they require learners to apply knowledge at different levels. For example:

- Recognize/recall—Information is repeated.
- Process/apply—Information is used in an illustration, example, or solution.
- Deduce/infer—Deductions and inferences are made from applying the information.

In this way, oral questioning can be tailored to more and less capable individuals.

There are a few potential disadvantages of oral questioning. For example, the questions must be well developed to elicit the desired response level. A poorly worded question may hamper rather than help the instructional process. It is a good idea to prepare questions in advance until you become used to the technique. In large groups, it may be difficult for students to hear—especially if any individuals in the class have hearing problems. Oral questioning may be time-consuming, and a discussion can become unbalanced if assertive members of the class are allowed to dominate while quiet class members are overlooked.

However, when handled with sensitivity, this technique can be excellent for use with adults. It can help create an atmosphere of respect and equality in the classroom and can provide a forum for learners to share their experiences with the others in the group.

Subject matter experts. People are a very important resource for an instructor. A subject matter expert, or resource person, can be invited to talk to the class about a variety of subjects. Such a person might, for example, be any one of the following:

- A skilled worker who uses the most up-to-date equipment
- A labor market expert who can discuss employment conditions
- A personnol manager who has valuable insights on how older workers can market their experience
- A counse'or who can discuss ways to cope with stress during a midlife career change
- Another adult learner who has experiences to share or who has completed the program and can give examples of its relevance
- Another person who can add a new ownension to your curriculum

Using a subject matter expert provides a break from normal classroom routine. A carefully selected speaker can also motivate students by providing a model of success, bring an element of down-to-earth realism to the instruction, and help to maintain linkages with the community. Coaching speakers before their talks can help them meet your expectations. Sometimes, when particular experts cannot come to your class at the time you need them, it is possible to audio- or videotape their presentations or to talk to them by means of a teleconference.

Field trips. A field trip is a visit by an individual or a group to a place outside the regular learning environment. It is designed to achieve objectives that cannot be achieved as well through other means—for example, seeing a process firsthand, seeing the most up-to-date equipment in use, or experiencing the atmosphere of a particular work setting.



Field trips are a natural part of business or industry training because the office or plant provides an excellent site. The class can be taken on short walking tours within the facility to observe equipment, systems, or situations the trainees will face in the job.

Often a field trip involves a guided tour. If there are opportunities for more than one type of experience at the same site, the class may be divided into smaller groups and rotated among the points of Interest. In addition to providing concrete learning experiences, field trips give learners firsthand experience and enable them to appreciate the relevance and importance of what they are learning in class.

When the site for a field trip is well selected, the trip well planned and conducted, and the experience worthy of class time, field trips can be an effective strategy for teaching adults. One way to ensure that all these criteria are met is to involve the students in every aspect of planning to ensure the trip meets their needs. It is also helpful to precede the trip with a handout and discussion of points or questions and to follow the trip with a discussion.

Group Process Activities

Group process activities depend on student participation and interaction as a primary means of instruction. These techniques are usually informational to some extent: the learners actively engage in presenting, sharing, or processing information. Although these techniques are not generally a very efficient means copresenting information, the exchange of ideas among learners contributes to the development of self-awareness, problem solving skills, interpersonal skills, and skill in breaking down communication barriers. Group process activities are especially appropriate for adult learners who need to develop their capacity for self-direction and decision making

Group discussion. This type of discussion usually involves the whole class, although it can be used with smaller groups. The purpose of a group discussion is to share information on a given topic and to analyze and evaluate that information. The ultimate goal may be to reach a definite decision, or simply to exchange ideas.

The group leader (you or a student) keeps the discussion on track. Ideally, all members of the class participate in the discussion, so that a variety of viewpoints is revealed. In many cases, it is also important that each learner serve as a discussion leader at some point. With good leadership, a group discussion can stimulate thought and analysis, encourage interpretations of the facts, and develop new attitudes or change old ones.

Panei discussion. A panel discussion is a small-group discussion among a few people, conducted in front of an audience. The panelists may be outside experts or class members. The most appropriate topics for panel discussions are case that are of immediate concern to the class and somewhat controversial in nature.

Each member of the panel is responsible for one aspect of the topic. The panelists need to be generally prepared on the whole topic and thoroughly prepared on their own subtopics. The Jiscus sion is directed by a moderator who introduces the topic, poses questions to the panel members, and keeps the discussion balanced and moving along. The panelists do not actually give prepared presentations. Rather, they respond to questions on their topics and react to other members' comments.

The rest of the class listens to the panel discussion and afterward may ask questions of the panel members. Class members will find these opportunities even more worthwhile if they are asked to develop a list of questions before the presentation. This helps them focus on specific points in the discussion and to refine their listening skills.

Symposium. This is a more formal type of discussion format than the previous two, in that several speakers give prepared presentations on different aspects of an issue rather than discuss the issue informally. Usually, the presenters are outside speakers who are experts on the given topics. However, it is possible to set up a symposium in which the presenters are students, especially when the students have special expertise in their fields. The presentations may be followed either by a pancl discussion among the speakers or by a question-and-answer period involving the audience.

Brainstorming. This technique is especially we'll suited for involving learners in a spontaneous discussion for the purpose of generating ideas or suggestions on a specific topic. It is also useful for developing fresh ideas upon which to base later planning (e.g., topics and activities to include in the course that will meet students' needs and specific ways to apply information from the course).

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A brainstorming session is guided by a leader (either you or a student) who keeps the discussion moving and ensures that conground rules are followed. The ideas are written down by a recorder. All relevant ideas are welcomed and accepted; they are not evaluated or criticized during the session. Discussion and assessment are saved for a later time.





Brainstorming, when well planned and done with sensitivity, has the advantages of involving the participants, stimulating creativity, breaking down communication barriers, and generating valuable ideas. The positive atmosphere encourages all participants to contribute ideas.

Buzz group. In the buzz group technique, the class breaks into smail groups (e.g., six members each) to discuss a limited topic for a short period of time (e.g., six minutes). Each group selects a leader, who keeps the discussion on the right track and encourages all members to participate, and a recorder, who keeps a record of the discussion and later summarizes it for the whole class. Your role is to monitor the groups' progress by circulating during the discussions.

This technique is especially good for breaking the ice, promoting interaction, and generating ideas. Often, individuals who are reluctant to speak out in a large group will do so in a smaller group.

Question box. This technique is used to obtain learners' ideas, questions, or concerns anonymously. The learners are asked to write down their questions (or comments) and put them in a specified container by a certain time. The contributions are then collected and used for a later activity. For example:

- Questions may be solicited on a given topic to be addressed by you or by a guest speaker.
 They may be used to structure a later presentation or given to the speaker at the time of the speech.
- Opinions on a given topic may be requested.
 The responses may then be used as starting points for later discussions in class.
- Class members may be asked to place positive and negative reactions on a given topic in separate boxes marked pro and con (rather like voting). These can be used in planning an upcoming class activity.

This technique has the advantage of giving learners time to consider their responses without using class time. In addition, anonymity is helpful in some situations—for example, in allowing leaners to contribute their ideas on a sensitive issue without embarrassment, or to take what they perceive to be an unpopular stand without alienating themselves from the rest of the class.

Hands-on Practice Activities

Most adults learn best by doing. They need to apply new knowledge at some point in the learning process in order to internalize it. Instructional techniques that give learners opportunities for hands-on experience and allow them to practice the skills they are learning have an especially important place in occupational programs. For adult learners, they are absolutely essential. Ideally, such participatory activities are interwoven throughout the program with cognitive material that provides information.

Hands-on activities enable learners to integrate knowledge, attitudes, and skills (i.e., learning in the cognitive, affective and psychomotor domains). They help learners to "cement" what they have learned by applying it in a practical context. They allow students to experiment in a nonthreatening situation, while providing a degree of realism and immediacy that is often lacking in an abstract presentation of ideas. Hands-on activities also provide a continuing source of feedback about comprehension and progress, to both you and the learners.

Laboratory work. Laboratory work is a natural part and the most obvious "hands-on" component of most occupational programs. It gives the learners the opportunity to learn by doing, to apply the skills they are learning in the classroom, to gauge their own skill development, and to develop confidence in their ability to do the job.

You have numerous roles to perform in relation to laboratory work:

- · Plan and set up assignments
- Provide oral and written instructions
- Provide for the individual learning needs of students (e.g., through the use of instruction sheets)
- Supervise and assist with work in progress
- Evaluate learners' work

In addition, you need to provide for student involvement through group discussion, individual job planning, lab management, and creative problem solving.





Projects. Another means of providing learners with hands-on experience is the project—a task or problem undertaken by one class member, a small group of learners, or the entire class. In a project, the learners **do** something. They may run a business, repair equipment, provide personal service, make a product, renovate a building or reclaim an outdoor area, or carry out some other activity.

Projects give learners an opportunity to apply what they are learning in the classroom. They integrate theory with practice, knowledge with action, and help students learn to solve problems related to their occupational area. Projects may be used as a culminating activity, to reinforce and supplement classroom studies. Or, a series of carefully planned projects (or a single major project) may serve as the focal point for all instruction. In this latter situation, related classroom instruction supplements and supports the projects.

Projects may be prescribed by you, selected freely by the learners, or selected by learners from a list of approved projects you have provided. In any case, projects are selected to meet course objectives. Giving class members some degree of choice also enables them to meet their own needs and career goals, which is crucial for adults.

Community study. A specific type of project that can be used is the community study. Through this type of activity, learners gain experience in such areas as fact finding, problem solving, interpersonal skills, and interviewing methods, while also gaining knowledge about a given topic.

Learners are given (or select, with the instructor's approval) a topic or research question related to their fields of study. They plan the methods they will use in seeking answers in the community—whether through personal interviews, survey methods, library research, or other information-gathering techniques.

A community study may be an individual or group project. When used with a group, the members usually take individual responsibility for different aspects of the question or for tapping particular sources of information. The results are analyzed, synthesized, and reported orally or in writing.

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Simulation. When it is impractical to obtain reallife on-the-job experience, a simulation is often the next best alternative. Simulations replicate the work environment as closely as possible. This allows learners to experience some aspects of the working situation and to practice responding to them. Because simulation activities are a step removed from reality, they enable learners to gain valuable practice and to learn more about themselves without risk to themselves or others (for example, by using a CPR dummy instead of a heart attack victim).

There are several types of simulation activities. They may be commercially developed, teachermade, or even student-made. Regardless of the type used, the simulation experience must be (1) carefully introduced into the learning situation, so that learners understand the objectives of the activity and how it works, and (2) followed by a discussion of the key concepts covered and the outcomes of the experience.

- In-basket—An in-basket simulation is a decision-making exercise structured around a real-life situation. Learners receive materials that require them to set priorities, budget time, and demonstrate skills in carrying out work tasks. An example might be a secretarial "in basket" containing several items of varying priority to be handled by the learner.
 - In-basket simulations can be quite complex, involving many learners in interrelated roles. For example, a banking simulation might be set up to include roles for tellers, supervisors, consumer and commercial loan officers, and many others. As in a real bank, the actions of one person would affect the work of others.
- Equipment—Equipment simulators allow learners to operate controls as they would on the job, but without some of the distractions, dangers, or costs that would be encountered on the job. For example, driving and flight simulators and specially equipped mannequins for the health fields provide practice situations without danger to the operator or patient.

In addition, computer-assisted instruction is opening new vistas in simulation. Hardware and software are available for instruction in basic skills, as well as in many content areas, using principles of programmed instruction. This field is growing so rapidly that what has not been thought of today may be commonplace by tomorrow.

 Case studies and case situations—A case study provides a description of a realistic problem situation and how someone solved that problem. The learner is asked to analyze how well the person handled the situation. A case situation presents an open-ended problem situation, which the learner is asked to analyze and solve.

Case studies and case situations can provide an effective technique for getting learners to apply their knowledge to real-life situations and to exercise their problem-solving skills. To be effective, they must be carefully developed, so they are challenging to the learners, written in an interesting manner, and closely related to the lesson objectives.

 Gaming—Gaming is a type of simulation designed to generate learning through the problem-solving actions of a game. Commercial and teacher-made games may be used for this purpose. Framegames, in which the game structure is provided and you incorporate the occupation-specific content, are also a growing phenomenon.

Great care must be taken when attempting to use games with adults. They must have substance, be challenging, and have a readily apparent purpose, and they must not involve activities that may appear to be silly or childish.

 Role-playing—Role-playing is an unrehearsed dramatization in which the learners play the roles of participants in a situation or incident. It is often used in relation to social situations, customer or client interaction, employability skills, and other areas involving human relations, such as negotiation, communication, or conflict management.

There are three main forms of role-playing: (1) role-reversal, in which the learner assumes the role of another person with whom he or she must normally interact (e.g., the health occupations student assumes the role of a patient); (2) character role-playing, in which the learner becomes a specific person and acts as he or she thinks the character would act in a specific situation; and (3) position role-playing, in which the learner plays a character but is not given facts about the person and is free to play the part as he or she wishes.

Role-playing has many potential uses and benefits. It can provide examples of behavior, help individuals develop more sympathetic attitudes or gain insight into other people's perspectives, and provide a means for improving communication skills.

However, role-playing must be very well planned and introduced into the lesson. And it must be used with great sensitivity toward the people involved. Students may be uncomfortable at first and should be given opportunities to practice before the actual role-play takes place. Role-playing also needs to be closely monitored to ensure that learning objectives are being met. Finally, the activity should be followed by a carefully guided discussion to reinforce the objective.

Written and oral assignments. One of the most important ingredients in improving learners' basic skills is frequent practice. This practice can be provided through the use of regular oral and written activities. Such activities can be woven naturally into the fabric of ongoing course activities. They may include written and oral reports, statements of opinions or viewpoints, and questions; participation in discussions and other group process activities; interviews; and completion of forms, tests, worksheets, and other materials.

Peer coaching. Another way to provide learners with practice and continuing support is to use peer coaching. This involves pairing learners, usually by competency level, for a given skill or activity. For example, a more advanced student might be paired with a student who needs assistance. The advanced student, with your guidance, can tutor his or her part ner in the skill and provide ongoing coaching as needed. This technique can be beneficial in several ways. It reinforces both students' learning, it frees you to work with other students, and it encourages students to make use of peers as part of a support network.



Resources to Enrich Techniques

Up to this point, we have been talking about using a variety of instructional techniques—strategies that involve people helping people to learn. There is also a wide array of resources—printed materials, audiovisual aids, and other visuals—with which you can enrich your instructional techniques.

Resources do not replace the instructor. Rather, they help increase the chance that learning will occur. It is important to provide variety in the resources you use, in order to reach your students in as many ways and at as many levels as possible. The following brief descriptions provide an overview of available resources.

Print Materials

One of the oldest resources in education is printed instructional materials. Textbooks, workbooks, learning packages or modules, handouts, outside readings, and other printed resources are used to present information. The following are a few other types of printed material that are widely used in occupational programs.

Instruction sheets. Instruction sheets have an important place in individualized instruction, especially in laboratory work. They are printed (typewritten or handwritten, photocopied or otherwise duplicated) instructional aids designed to supplement your oral and visual instruction. Instruction sheets may be developed by you, furnished by the institution, or obtained from commercial sources.

Instruction sheets are given to learners to guide their individual work. They enable learners to work at their own pace, with some degree of independence. There are several types of instruction sheets:

- Job sheet—This type gives instructions and specifications for doing a complete job and may include a working drawing.
- Operation sheet—This gives instructions for a single basic task, operation, or process. It might apply to a number of different jobs in which the task appears.
- Information sheet—As the name implies, this sheet supplies information on new techniques or technical data needed to do an assigned job. Such information may not be readily available from other sources.

Instruction sheets are brief and prepared in an easy-to-read format (e.g., using frequent subheads and bulleted lists, as in the preceding paragraph). They contain only necessary information and are written in clear, straightforward language.

Programmed texts. Programmed texts present material in a carefully planned sequence of steps that lead the learner from present knowledge to achievement of specific educational objectives. The learner actively participates by continuously responding, either by writing a response or by selecting a multiple-choice answer. The learner is informed immediately whether the response is right or wrong.

Programmed materials can be used for conveying information and for teaching certain skills. Carefully developed programmed materials are useful for individualizing instruction. They permit you to monitor the work of individuals working on a variety of self-paced programs. However, such materials cannot take the place of skilled instructors, and instructors who use these materials must be trained to use them effectively. Even when the materials are used properly, some learners become bored with them.

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Audiovisual Media

A great variety of audiovisua! (AV) resources are available to instructors. Some have been around for a long time; others are being developed so fast one can hardly keep track of them. All AV resources require some kind of equipment, ranging from the simplest overhead projector to the most complex computerized interactive equipment.

Audio recordings. Audiotapes and records can be used in various ways in the classroom—to introduce a topic, to present information, to summarize a lesson, to provide examples of something you are discussing, or to provide a narration to accompany a set of slides or a filmstrip.

Both tapes and records are relatively inexpensive, and tape recorders and record players are readily available in most settings. An added benefit of tapes is that you can make them yourself to meet specific instructional objectives. For example, you could tape-record an interview with a subject matter expert who cannot come to the class in person.

Filmstrips. Filmstrips are composed of a series of still pictures that are projected onto a screen. They are excellent for presenting close-ups of key steps in an otherwise difficult-to-see process. They can be used at any point in a lesson and can be readily combined with other resources, such as audio recordings, and with various techniques. The projector is portable and is available in most educational settings.



Sildes. Like filmstrips, slides are still pictures projected onto a screen, so they are useful for similar purposes. An advantage of slides is that, being separate units, they can be rearranged, added, deleted, or replaced by updated pictures. In addition, you can make your own slides to meet specific instructional objectives.

Films. Motion picture films can bring a bit of reality and interest to the classroom. They can portray actual movement and processes and enable learners to both see and hear events that they otherwise could not experience. Newer equipment is more portable, inexpensive, and easier to operate than the older equipment and makes individual viewing possible.

Transparencies. Transparent acetate material on which information or drawings have been produced can be projected onto a screen by means of an overhead projector. Transparencies provide a visual supplement to your oral instruction when used as part of an illustrated talk.

Teacher-made transparencies are especially goc.d for presenting complicated concepts or processes simply and clearly. They can be prepared on-site as the lesson unfolds. They are also good for updating published texts and for tailoring instruction to the specific instructional needs of the class. They are best suited for use with groups.

Television and videotapes. Videotape recordings are filmed with a videotape camera, stored by means of a videotape recorder, and replayed on a videotape monitor or television. Like audiotape recordings, they can be reused many times.

Videotapes can be used in the classroom in several ways. Productions can be prerecorded by you or a colleague, an audiovisual specialist, or a commercial firm. Then they can be played in class at the appropriate time. For example, a special lesson introduction, a complicated demonstration, an interview with a subject matter expert, or a field trip could be taped and replayed for future classes.

Videotaping can also be used very effectively as a learning device in the classroom. For example, student presentations can be videotaped and then used for self-evaluation, instructor evaluation, or as the focus for group discussion. Videotaping is especially good for reinforcing the development of interpersonal skills. For example, learners might role-play an employment interview and then watch their own perfit mance on the replay. This can be a real eye-opener for many learners and can be used to help them improve their performance.

A television camera and a monitor, with or without videotape, also provide a useful teaching tool. They enable you to provide a magnified close-up view of a demonstration in which small parts are being used or in a situation where only one or two students could get close enough to see the action. For example, in a circuit board, the camera could focus on the instructor's hands and tools. Students could sit at their own places with soldering irons and components and duplicate the process as they watched on the monitor. Similarly, the camera could provide a view of a technique done under the hood of a car.

Teleconferencing

Teleconferencing is a way of providing educational experiences to people who are geographically distant from the place of instruction. At one time, this was done primarily by sending printed correspondence materials to students for independent home study. Educational radio and television broadcasts have also played a part in providing for long-distance learning.

Teleconferencing—connecting people via telecommunications systems—is a much more personal way to reach people over long distances. By installing a portable conference telephone in the classroom, you can amplify a phone conversation so that it may be heard by an entire group. In addition, anyone in the group can talk to the person at the other end of the line.

Thus, a subject matter expert in another building or city or state can be brought into the classroom "live," and two-way communication between expert and audience is possible. Or, an instructor can teach a course simultaneously to several classes of students—one in the same room with him/her, and the others at branch sites, connected to the main site by teleconference hookup. If all sites also have classroom computers and monitors, these can be connected by modem, and the oral communication between sites can be supported with illustrations, graphics, and written materials.

Even more sophisticated hookups are available at some institutions. Some have arrangements whereby conferences, for example, can be taped and broadcast, via communication satellite, to receiving sites, which bring down the signal using a satellite dish. If such systems are available to you, it can greatly expand the instruction you provide your students or the audience to which you provide instruction.



Visual Aids

There are a variety of resources for visually supplementing your instruction that do not depend on sophisticated electronic equipment. Most of them are familiar and quite inexpensive, yet they can add an important visual dimension to the instructional process.

Chalkboard. The old, familiar chalkboard is available, inexpensive, easy to use, and suitable for many purposes. It can be used effectively for presenting facts and principles; illustrating ideas with graphics or drawings; emphasizing key points; listing steps, procedures, or rules; making announcements; and many other instructional uses. Very lengthy material or intricate drawings are better illustrated with handouts.

When using the chalkboard, it is important to remember the following guidelines:

- · Write big enough so that everyone can see.
- Talk to the class (not the board).
- Don't block the learners' view of what you have written.
- Plan your use of space and arrangement of material.
- Prepare time-consuming material in advance.

Flip chart. Like the chalkboard, the flip chart—an easel with a large pad of paper attached—is convenient, inexpensive to use, and suitable for many uses. It is also portable and compact, so it can be moved easily from one place to another. Flip charts are used for many of the same purposes as chalkboards and are especially good for drawings, notes, and charts.

Sheets can be prepared in advance and revealed one at a time during a presentation. An advantage over chalkboards is that the material on a flip chart can be saved for future use. However, what has been written cannot be erased or changed easily. And because flip charts are smaller, they may be less suitable for use with large groups.

Flannel board. A flannel board consists of a flat surface covered with plain, rough fabric. Figures and cutouts to be displayed on the board are backed with flannel so that they adhere to the fabric. Newer models are made with improved materials, such as Velcro.

Although commonly thought of as a resource for use with younger students, the flannel board is also appropriate for use with adults. It can be used, for example, with a scripted presentation for which a few key points can be illustrated, one point at a time, with simple figures or blown-up pictures. A flannel or Velcro board would also be an effective way to present a flow chart or pie graph in increments.

Models and objects. Use of models and real objects is an excellent way to provide visual and tactile reinforcement and concrete experiences in the classroom. Sometimes it is possible to use the real object:

- When the parts are big enough to be seen
- When the object is not too big to bring into the class
- When the important parts can be seen from the outside
- When the object can be used effectively to illustrate a principle or process

Sometimes models are better instructional tools than real objects. Models are imitations of the real object, often with a difference in size. For example, you might have a scale model—a larger than life-sized model of a tooth or a smaller than life-sized model of a landscape.

Models can also be specially designed for instructional purposes. A cutaway or cross-sectional model shows the inner parts that are not normally visible from the outside. A mock-up may show a simplified version with a certain part highlighted, with color or texture. The more senses a learner can use in experiencing an object or model (i.e., sight, touch, perhaps hearing), the more he or she is likely to learn from it.

Displays. Displays may include photographs, clippings, cliarts, graphs, diagrams, specimens, models, products, and other materials related to the field of study. They may be placed on walls, on bulletin boards, on tables, or in display cases. They may be two-dimensional or they may include three-dimensional objects. They can be enhanced by providing an audiotape recording to explain the topic of the display.

Effective displays are not a hodgepodge of varied materials used to fill a space. Rather, they are carefully planned to fulfill a specific instructional objective, and they have been determined to be the most effective means of carrying out that objective. Displays can serve several purposes:

- Motivating and stimulating class interest
- Enriching instruction
- · Transmitting information
- Summarizing the key ideas of an instructional unit

Displays are also a very good way to let all learners study materials of which you have only one example. In addition, displaying work produced by individuals in the class is a way to provide valuable reinforcement.





To gain skill in using specific instructional techniques and resources, you may wish to refer to one or more of the PBTE modules in Category C: Instructional Execution. These modules provide detailed guidelines for implementing each technique, as well as suggestions for practice activities and supplementary readings.



You may wish to refer to the *Current Index to Journals in Education* (CIJE) to identify journal articles relating to the use of specific instructional techniques with adult learners. CIJE is a monthly publication, available in most libraries, that publishes listings of journal articles with abstracts. The articles are cross-indexed by subject, author, and EJ-number.



You may wish to arrange a seminar-type situation with a group of peers. In this situation, you could gain practice in using various instructional techniques, such as illustrated talks, demonstrations, oral questioning, group discussion, brainstorming, and buzz groups.





Each of the following cases describes an adult instructional situation. Read each situation and then **describe in writing** types of instructional techniques and activities that would be appropriate to use in each case. Explain the reasons for your choices.

CASE SITUATIONS

1. Jack Talisman has an adult education class in basic plumbing repair. He wants to present a lesson on removing and replacing a sink trap.

2. Ann Kellogg has provided her career change class with a lot of information on job-seeking skills. She wants them to practice the techniques she has been teaching them before they apply the skills in the actual job market.



3. The new management training session is about to begin at Abbey Services, inc. Last session the trainer, Bob Atwood, found that it took quite a long time to get the ball rolling. The trainees had not participated in any management training before, and they seemed unsure of what to expect. Bob wants to do something the first night of class to get the trainees involved and working together.

4. Sloan Phillips wants to present information to her heating and air conditioning students on the principles of radiation, convection, and conduction.

5. Hank Koenig wants to give his class—displaced homemakers returning to the work force—an idea of how various aspects of the business world have been changed by technological advances in business equipment.



6. Chris Kerley's class is learning entry-level skills in retailing. As part of the training, the learners have naturally received a good dear of mathematics review and practice to enable them to handle such duties as writing up sales slips. Chris realizes, however, that many of the learners also need practice in basic literacy skills to enable them to market their new occupational skills and succeed on the job.





Compare your written responses to the case situations with the model responses given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same major points.

MODEL RESPONSES

1. To present information on a manipulative skill such as removing and replacing a sink trap, Jack can put together several techniques that enable the students to learn through the auditory, visual, and tactile sensory channels. For example, he can introduce the task by means of an illustrated talk that includes verbal frames of reference (e.g., relating this task to a similar task on a plumbing fixture covered in a previous lesson) and that incorporates visual aids (e.g., a chalkboard or flip chart diagram of a sink trap with the parts labeled).

Then Jack can demonstrate the skill, using either an actual plumbing fixture or a mock-up. During the demonstration, he should explain each step as he performs it. He can more closely involve the students by using oral questioning techniques while he demonstrates and then by asking one or more learners to repeat the demonstration while they or their peers narrate. This would also provide some of the learners with the opportunity for a tactile learning experience. Alternative visual techniques could include use of slides of the steps being completed, a film of a worker doing the job, or a previously taped videotape of a demonstration.

2. A simulation experience would achieve Ann's objective of giving the learners practice in a non-threatening environment. There are a number of ways a job-seeking simulation can be set up to include different kinds of learning activities. Individual work and peer interaction, learning by doing and by observing, and supervised and independent work are examples.

For example, in an in-basket type of simulation, students would be given real or mocked-up newspaper classified ads, notes about job leads from friends, employment service referrals, and other potential leads to pursue. Telephones could be set up for role-playing inquiries and follow-up calls, with peers playing the role of employers on the phone.

Learners could be supervised in individual activities, such as developing letters of application or filling out application forms, or could work independently. The letters and forms could then be critiqued by the instructor, a peer, or the group, using performance checklists developed for that purpose.

Job interviews could be set up as role-play situations. Class members could watch and critique the interviews (again, using performance checklists) and give the participants suggestions for improving their performance. Or, if videotape equipment is available, the interviews could be taped and the participants could self-evaluate their performance.

3. Bob apparently needs to accomplish several things at the outset in order to get the course off to a good start. He needs to find out something about the students, get them involved and working comfortably together, and determine what kinds of training activities may be appropriate for the group.

These objectives can probably be achieved at the same time through some type of group process activity. For example, Bob could lead a group discussion aimed at (1) discovering each person's background, personal training objectives, and preferences for types of learning activities, and (2) agreeing upon a course of action that will meet everyone's needs.

If the group is large, buzz groups might be appropriate for parts of the discussion. This technique, because of the small group size, can lead to greater involvement and sharing among participants. It also permits many to voice their opinions concurrently, which can save time.

For generating ideas for topics or training activities or seeking solutions to a great disparity in training needs, brainstorming might be useful. For obtaining input about areas of concern, onthe-job problems that participants would like to



have addressed during the course, or other potentially sensitive issues, the question box technique offers the welcome element of anonymity.

4. Sloan can give a lively and interesting presentation on the principles of radiation, convection, and conduction in several ways. She could, of course, show a film that explains and illustrates the three principles. Or, she could give an illustrated talk using both verbal and visual illustrations. For example, any number of anecdotes and examples come to mind to illustrate the effects of transfer of heat, such as the person who gets sunburned on a fishing trip or the cook who is burned by a hot pan. These concepts could be visually illustrated with simple chalkboard diagrams, more complex drawings on handouts, or photographic sildes. And the key points of the presentation could be listed on a flip chart or transparencies. Another approach is to give a demonstration of heat actually being transferred by each of the three methods, using simple everyday props. The demonstration would, of course, be accompanied by verbal explanations, and could be combined easily with oral questioning.

For a more tactile experience, Sloan could set up centers with equipment, materials, and instruction sheets, where learners could experiment with different materials to discover which principle is at work.

5. Hank can provide opportunities for a closer view of the "real world" both in and out of the classroom. Outside the classroom, it may be possible to arrange one or more field trips to business establishments where the effects of technology are evident. Or, for some learners, an individual project may be appropriate. For example, individuals might interview people in business about the impact of technology on their jobs and report their findings to the rest of the class.

If outside activities are impractical, there are inclass techniques that are also effective. A film may be available showing modern business equipment and processes. A series of slides could be developed, perhaps showing "before" and "after" types of business settings. A subject matter expert is a possible source of firsthand views about how business is changing and what it means for the workers. In a similar vein, a panel discussion or symposium can give the class a chance to see the situation from more than one perspective.

6. Chris does not have to put aside her instruction in retailing in order to give her class practice in the basic skills. She can incorporate into her instruction a variety of assignments—on retailing subject matter—that require reading, writing, and oral presentation.

For example, she can have them **read** instruction sheets, outside articles, trade magazines, and instruction manuals. They can be asked to analyze newspaper advertisements for local retail concerns.

Written assignments might include a written report of a project, a field trip, or the outcomes of a group discussion; statements of opinions or concerns on a given issue (perhaps as part of a question box activity); letters in response to customer complaints; completion of job-related forms; and other activities that require writing at various levels.

Oral activities can include oral reporting; informal participation in group discussions, buzz groups, question-and-answer sessions, and other group activities; serving as spokesperson for a small working group; peer teaching or narrating a skill demonstration; participation in role-plays, and interviewing a subject matter expert. Again, this array includes activities at many different skill levels.

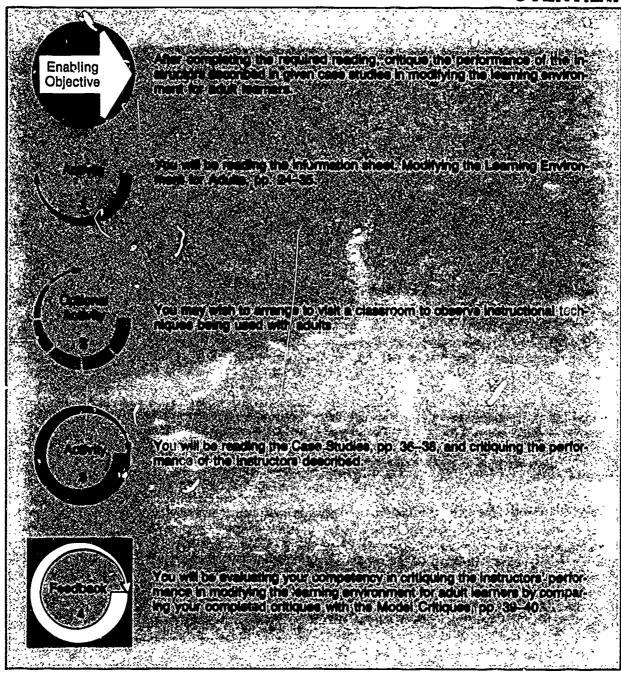
Chris can also set up individual or group retailing projects for the class (or have them design their own) that call for use of the whole range of basic skills.

Level of Performance: Your written responses to the case situations should have covered the same major points as the model responses. If you missed some points or have questions about any additional points you made, review the information sheet, Varying Your Instructional Techniques, pp. 7–16, or check with your resource person if necessary.



Learning Experience II

OVERVIEW







There are many ways in which an instructor can make the learning environment more conducive to learning and more appropriate for adults. For information about methods you can use in working with adult learners, read the following information sheet.

MODIFYING THE LEARNING ENVIRONMENT FOR ADULTS

Managing the instructional process with adults involves more than developing a wide-ranging repertoire of instructional techniques. An effective teacher of adults establishes a learning environment that meets the particular needs of adult learners.

Establishing such an environment may include modifying the traditional classroc , setting—in both its physical and interpersonal dimensions—in order to create an atmosphere of adult rapport and participation. It may involve structuring the learning experience to encourage independent learning, foster self-confidence, and increase group cohesion.

It most certainly will entail providing for individual differences and learning needs through variety and individualization. Finally, meeting the needs of adults will include demonstrating supportive attitudes, and it may require providing support services and serving in an advocacy role on behalf of the students.

These outcomes—rapport, participatory environment, student independence and confidence, individualization, group cohesion, support services, and advocacy—can be achieved in many ways. Many of these strategies require only common-sense approaches to carrying on respectful human interaction. They are not really different from the strategies that any good teacher uses with any students—just notable in their degree of importance when the students are adults.

Establish Adult-to-Adult Rapport

The simplest key to establishing rapport with adult students is remembering who you are and who they are. Many instructors who have taught secondary students or continuing students (those straight out of high school) at the postsecondary level have developed a particular mind-set about the instructor-student relationship, and it usually has to do with authority. These teachers tend to view themselves, perhaps subconsciously, as authority figures, and the students as subcidinate; themselves as older and wiser, the students as young and inexperienced; themselves as the leaders, the students as followers.

However, none of these attitudes really hold up when we are talking about adult education, and it is very important that those who teach adults recognize this. People who have reached adulthood

generally expect to be treated as adults. as people who have intolligence and are capable of learning, as people who have a broad range of interests and valuable experiences on which to draw, as people who are generally self-motivated and will work hard for what they want; as people who do not have time for a lot of silly rules or time-wasting procedures.

At the same time, it is important to recognize that not all adults are ready to step up and take charge as independent learners. Some adults may need your help in accepting the fact that formal education does not automatically mean that, as learners, they need to be dependent on you as the instructor.

In order to develop a productive learning environment for adults, you will need to establish adult-to-adult rapport. There are a number of techniques you can use to build rapport with your class. Let's look at a few of them.

Use nonverbal communication. Sometimes building adult-to-adult rapport with learners is just a matter of the way you look them in the eye. Sometimes it's your tone of voice, post are, facial expressions, gestures, or the interest with which you listen to what they have to say that demonstrates your acceptance of them as mature individuals who have something important to offer.

Deal with the whole person. It is also important to remember that for adult learners, the pursuit of an education is probably not the only thing going on in their lives. It may not even be the primary endeavor in their lives. They may have family (or no family, a job (or no job), financial or health problems midlife crises, or any number of other major situations that can affect their work in your class.

You will need to be sensitive to these aspects of your students' lives both instructionally and personally. Instructionally, you would not, for example, be well advised to require a great deal of work outside of class if students have no available time to do it. Personally, you need to be an interested listener and a friend to your students.

Don't talk down to adult learners. To develop rapport with adult learners, you need to treat them with respect and earn their respect in return. It is important to show that you regard them as peers or



contemporaries who have valuable insights to share and worthwhile occupational experience. Don't talk to them as if you expect them to be blank slates; acknowledge that they—like you—may be familiar with the subjects you're discussing and that you—like them—are still learning and don't know all the answers.

Address learners as equals. Some returning adults have negative images of school environments from the past. For them, education means authoritative, teacher-directed, rigid settings where teachers are demeaning and critical. Such images can interfere with their participating to the fullest in the learning experience.

In some cases, operating on a first-name basis (both you and the students) can help to dispel such authoritarian images. You should be sensitive to the situation, however, and try to determine what is appropriate for the learners in your class. Some populations (e.g., some older adults, some Southeast Asians) are more comfortable operating on a lesspersonal last-name basis. The point is to address adult learners as equals: avoid calling them by their first names when you are called by your last name.

In the same vein, speaking in terms of "we," instead of distinguishing between "you" and "l," helps to diminish the distance between instructor and learner, encourages a feeling of a group of adults working together, and helps to establish a relaxed, adult-to-adult tone.

Don't act the absolute authority. Many adult learners have been around as long as their instructor, if not longer. They find an "i know" attitude on the part of an instructor to be offensive. Experienced teachers of adults generally find that, in fact, they are neither absolute authorities nor necessa ily more knowledgeable than their students in many things. Adult learners have much to contribute, and by being open to learning from them, the class can gain from the maturity and experience of a whole class full of people, not just from one instructor.

For example, suppose a learner says, "That's not the way we do it where I work." The instructor who can respond comfortably with "Let's explore that," rather than "Your company is wrong," is not only going to gain a wider perspective but is going to reinforce the rapport he or she is building with the class.

Arrange the room in a nontraditional way. An informal arrangement—such as placing all the chairs in a circle, in a *U*, or around a table, with everyone, including the instructor, on the same level—also helps to break down the authoritative image of education. It helps students to see themselves as equal members of the group and to participate from that basis. In addition, learners typically participate more when they can see each other's faces.

Share information about yourself. In your teaching, you will be focusing on the learning objectives and experiences of the learners. However, there will be many times when it is appropriate to share something from your own experience to illustrate a point you are making, draw an analogy, or otherwise give added meaning to what you are saying. These moments have another equally important purpose. They set up a model for openness and for informal sharing that can help the learners open up and share in the same way. They can also strengthen your rapport with the class.

For example, imagine the first session of a class in which an instructor begins a discussion something like this:

"When I was deciding whether to take this job of teaching career decision making, I found myself taking a look at my own situation, my own career. I realized that I myself was at a crossroads. My family . . ." and so on.

This instructor's willingness to expose the fact that he or she has the same adult concerns—perhaps crises—that the learners have, helps to establish a common ground with the learners that will make it easier for them to share in the same way.

Be reachable. Real rapport can grow out of a sense of camaraderie. Let your students know that you are interested in them and invite them to come to you if they need help. When they do come, take the time to listen. Let your students know how they can reach you outside of class hours. Some instructors try to schedule at least one semisocial event (e.g., pizza after class) with each class to help develop a sense of their being reachable outside the classroom.

Create a Participatory Environment

One thing that sets adult education apart from other types of education is the role of the learner. The traditional role of the learner is to listen to the teacher and respond when called upon. In adult education, the learner's role is to participate in a dialogue. An optimum adult classroom environment is egalitarian, democratic, cooperative, collaborative—people working together on an equal footing.

Getting learners to adopt this view of their responsibility for their own learning may not be easy. It can take a long time to get them totally involved. However, their role needs to be made clear to them at the very beginning. They need to leave their very first session in your program knowing that this is different—this kind of education does not fit any old images they may have of authoritarian teaching. What are some ways in which you can establish a participatory, collaborative environment?



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Get the learners talking immediately. The signals you give on during the first 15 minutes can set the tone for the whole program. If you can get the learners involved and talking during that time, it will help to set the right tone—that it's okay to participate—for the rest of the program.

One technique is to ask them what they want out of the program. Adults sometimes have trouble verbalizing their objectives, but they generally have some purpose that led them to the program. You may need to help them find ways to express that purpose. The discussion will help you tailor the program to their needs and will give them a feeling for who their classmates are. More important, it will show them that what they think really matters and may get them to take some responsibility for their own learning.

Starting out with a discussion does not mean you should ignore how learners feel about such an activity. Some learners initially prefer a more directive environment. Because of past experiences, uncertainty, anxiety, or other factors, they want to know that someone is in charge, and such feelings should be dealt with.

For example, if learners are reluctant to share in the large group, you can ask them to talk to the person next to them for a few minutes or to share in a small-group setting. Or you can ask them to write down their feelings in a letter to you. In this way, you can make it easier for them to take part—but still involve them—and gradually bring them along to a point where, eventually, they will appreciate being able to take an active role.

Involve the learners in deciding on course content. The data you have gathered about individual training needs, as well as the outcomes of initial icebreaking discussion, will provide information about the learners' individual objectives. The natural next step is to make decisions, as a group, about the course.

For example, an instructor might find that he or she had one view of the course, while the learners were hoping to get something a little different out of it. Through a group process technique, these differences could be explored and the course content redefined, insofar as possible, to meet the needs of the learners. When preferences cannot be accommodated, that should also be made clear.

Other course matters, to the extent that they are flexible, might also be jointly agreed upon. For example:

- Types of learning activities to be used
- · Pacing of instruction
- · Texts and other learning materials to be used
- · Optional readings and activities to be included
- Evaluation options, such as contracting for grades, contracting for learning to be done, selfevaluation, or other achievement measures

This is not to suggest that students with little or no prior training or experience in the occupational area should be expected to suggest potential texts and readings. They would probably have no basis for doing so. However, more experienced students might have some valuable suggestions to offer. And even inexperienced students can, if given a slate of acceptable options by the instructor, help determine which of those options most appeals to them and their preferred style of learning.

The amount of latitude you have in altering curriculum will be a function of your institution's policies and occupational standards. But insofar as it is possible to make adjustments to accommodate learners' needs and preferences, it is important to involve the learners in making those decisions and agreeing upon roles.

involve the learners in establishing class management procedures. Adults should have a say about such organizational details as when (and if) to take breaks, smoking in class, and similar matters. For example, one class might want to dispense with a scheduled break and either use the time productively or get out early so as to get on to other things in a busy schedule. Another class might feel that a break is necessary to maintain their ability to concentrate. In some cases, it may even be possible for students to have input into the class schedule, including meeting dates and times.

At the adult level, teacher-imposed discipline policies (e.g., regarding attendance, late arrival, deportment) are not generally appropriate, beyond those imposed by the organization or occupational program.



Provide multiple learning options. People have differences in learning styles, preferences for different kinds of activities, and varying levels of ability in different study skills. Offering individual learners choices in how they will learn specific portions of the course content (e.g., through reading, computer-assisted instruction, self-directed research, or completion of a project) allows them to tailor their educational experience to meet their own needs.

Similarly, you can suggest additional, optional readings or activities for those individuals who wish to carry their study further. This is especially important when you have worked with individual learners to establish learning goals at different levels of content mastery.

Involve learners as instructional resources. When learning is a collaborative endeavor, both the instructor and the students learn, and both teach. You can help this happen by using learners as resource persons when you find that they have particular expertise that would benefit the others in the class. For example, you can involve learners in such activities as the following:

- Tutoring or coaching fellow students (i.e., working in pairs to covelop and practice new skills)
- Serving as instructional aides in the classroom (e.g., setting up activities and equipment, working with small groups, or helping to check out learners on competencies)
- Presenting information on a given subject to the class or sharing their knowledge and experience through a group discussion, panel, or symposium

Activities such as these give adult learners valuable experience on which they can draw when they are on the job. When they leave your program, they will not be able to depend on you for continued learning, guidance, and support. It is important that adults learn to rely on each other for support and to establish supportive networks with other adults for mutual reinforcement.

As part of a collaborative learning environment, you must also model the role of learner. This means being open to what you can learn from your students, actively inviting them to share insights and experiences, and sincerely listening when they do. This kind of behavior on your part helps to demonstrate to the class that we can all learn from one another, and it also serves to reinforce the concept of networking.

Monitor learner satisfaction When you begin your course by asking the learners what they want out of it, it is important to follow up regularly on that exchange to be sure the instruction is meeting their

needs. For example, after the third or fourth session, you can ask the group how tnings are going. What have they learned so far? What approaches do they like or dislike? Are their goals being met? Have any new goals surfaced? Have they had any new ideas for helping the instruction better meet their needs?

If individuals are reluctant to share how they feel in front of their peers, you can again use small-group discussion, written responses, or one-to-one (instructor and learner) discussion as alternative techniques for getting their input. Techniques such as these not only provide you with feedback on your instruction, but they (1) keep the learners involved in and responsible for their own learning and (2) reinforce the importance of ongoing communication.

Facilitate Adult Independence

As experienced and self-motivated as they may be, some adults may have been away from formal education for a long time. This can have several different kinds of effects on how they assume the role of student. For example, students whose last educational experience was quite **structured and teacher-directed** may feel that their job as students is to absorb and parrot back what they hear. Although they will expect adult programs to meet their individual needs, they may not be ready to accept the responsibility demanded of an adult learner.

Some returning adults may lack self-esteem and confidence in themselves as learners. They may doubt their ability to learn, and they may be anxious about what the future holds for them. If they are among the many workers who have lost their jobs to changing technology, they may both fear the new technology and recognize the need to learn something about it. Adults in this situation may feel resentment about having had to return to school at all.

Adults in a new and different educational setting may gravitate toward **dependence** on a friendly teacher, especially one who is sensitive to their needs. They may expect you to lead them, make decisions for them, and otherwise help them avoid taking responsibility for their own learning. However, this approach is not going to help them cope with what they will encounter when they leave your class.

Learning is a lifelong endeavor, not something that will be over with for your students when they leave your class. You can help prepare them for lifelong learning by helping them to develop independence. You should be careful, however, not to force them too abruptly into changing their expectations. Some adults may need to begin with the traditional dependent role and gradually adopt more independent ways.



Help adults learn to learn on their own. The participatory environment goes a long way in actively involving the learners in setting their own goals, making decisions, and accepting responsibility for their own learning. It is important to give them as much chance to "be in the driver's seat" as you can.

For example, using the members of the class as learning resources helps them develop confidence in their abilities. It also gives them practice at being the giver as well as the receiver in an adult learning network. Adults need to be able to work together with other adults in the work place to provide mutual reinforcement.

In addition, you need to assign work that requires students to plan and carry out learning activities on their own, such as research projects and reports, discovery activities, and brainstorming. When a field trip, guest speaker, or other activity involving outside resources is planned, involve the class in planning and organizing it.

Serve as a role model. Ac'ult learners gain immeasurably from seeing an example of an adult continuing the learning process and managing his or her own life in the face of change. You can serve as such a model simply by demonstrating that you are still a learner and that you, too, must deal with change.

The way you talk about your own experiences—perhaps mentioning a class you are taking, or a problem you are wrestling with in trying to balance different life roles—can send an important message of "I'm a learner, too. I don't have all the answers. And it's okay." The way you respond to students' questions can send a similar message. For example, when a student asks you something you can't answer, you can respond, "I don't know. Can anyone else help us out with this question? Well, then, let's see what answer we can come up with . . . "

Similarly, you can share with students some of the ways you deal with the forces of change in your life. This is a good way of breaking down barriers for students who are anxious about learning new skills. For example, some adults regard computers as frighteningly complicated and difficult to operate, while their children play and experiment and learn from computers as if computers were extensions of their own bodies. You might be able to share some anecdotes—for instance, about your own computer fears and your teenager's patient tutoring as you tried your hand at word processing—or some other pertinent example that shows how you face some of the same challenges as your students.

Teach decision-making and problem-solving techniques. Adults need the ability to make good decisions, set realistic goals, and solve problems in

order to take responsibility for their own lives and learning. They need to be able to find the help they need in order to solve the problems they encounter.

In any new class, the learners will desire varying amounts of autonomy. Their ability to make decisions for themselves will also differ. You will need to work with them, starting from their current levels of dependence or independence (some learners may initially need a good deal of structure, some not), and bring them gradually to a point of self-direction and self-determination. You can use such techniques as the following:

- Teach the process of decision making1
- Provide opportunities for practicing the decision-making process through class activities and assignments
- Encourage learners to think critically about situations and apply their own values to them
- Work with individual learners to help them set their own learning goals for your program
- Share examples of problem situations you have faced and how you solved them
- Focus group discussions on experiences in the learners' lives that have required problemsolving skills and encourage them to share their process and solutions with other class members
- Provide materials in a resource center on goal setting, decision making, and problem solving

The more experience adults have in applying problem-solving skills in the classroom, the better prepared they will be for self-direction after they leave the class.

Provide for Individual Differences

There are as many differences among adult learners as there are among younger students. Each adult learner will have his or her particular needs, interests, abilities, experiences, learning styles, motivations, physiological characteristics, sociocultural differences, and personality differences. It is important that teachers accommodate these differences in students of any age. But it is vital with adults, who may be somewhat less flexible than their younger counterparts.

Use a variety of techniques. The key to dealing with individual differences is variety. You should use a variety of instructional techniques and also, within that variety, give the learners choices to encourage



^{1.} To gain skill in helping students develop decision-making skills, you may wish to refer to Module C-8, Direct Students in Applying Problem-Solving Techniques, and Module L-11, Assist Exceptional Students in Developing Career Planning Skills.

self-directed learning. Instructional techniques should be varied in terms of grouping, learning modality, study skills required, type of assignment given, level of conceptual skills required, and teacher-student roles.

Provide appropriate and varied instructional materials. Students' individual differences will call for variety in the materials you use for instruction. For example, you might include textbooks, reference materials, magazine articles, instruction sheets and other teacher-made materials, workbooks, pamphlets, programmed instruction materials, computerbased materials, and audiovisual materials.

Whenever possible, it is a good idea to include **technological resources**, such as audiovisual media, computer-based programs, and other equipment. Firsthand experience can help to break down the fears some people have about electronic gadgetry. In a sense, the experience can help them to "shake hands with the enemy" before they face it on the job.

Giving learners choices in the materials they will use and suggesting supplementary readings are good techniques to ensure variety. Another excellent way of providing variety and choice is to set up a classroom resource center containing a wide range of materials related to program topics. You can continually add new materials, such as newspaper and journal articles. The class should be encouraged to use the center freely and to suggest or make additions to the collection.

Materials also need to be **appropriate** for adult learners. Unfortunately, you're not likely to have lists of books appropriate for adult learners, and comprehension levels are seldom specified in adult texts. So you will have to determine whether materials are written at an appropriate level. When appropriate materials are not available, you will need to develop materials or modify those that are available.



Materials for adults should be clear, written in a straightforward manner, and interesting. To some extent, this does involve readability, and you need to be aware of the level at which the material is written. But you also need to use caution in relying on word count, sentence length, or other indicators used in traditional readability formulas.

The "readability" of a given piece of material may have little to do with comprehension and more to do with high interest level. For example, a learner might be able to read a complicated technical manual that interests him or her. Yet the same learner might find a simple work of fiction too difficult if its subject is not of interest.

With adult learners, for materials to be readable, they must be **palatable**:

- Language simplification techniques should be used to modify difficult materials
- Layout and presentation should be visually appealing to an adult
- Writing should be clear—not obscure, wordy, or flowery
- Graphics should be used to help make the text easier to read

However, the "simple" materials that are available are often too basic for adults and, as a result, offensive. To take an extreme example, let's say that you have some adult learners reading at about the fourthor fifth-grade level. Yet a book written for a fourth or fifth grader would probably be totally inappropriate for these adults because of the way it is presented and the conceptual level of the content. You would need to use materials that are both written at a readable level and appealing to adults.

Relate instruction to learners' experiences. Your students will bring a rich background of experience to every class you teach. It is important to use those experiences as examples in your teaching. In a participatory environment, you can easily encourage learners to offer illustrations from their own experience that relate to what you are discussing.

This is true for very important reasons. First, research has shown that, while the learning process tends to slow down with age, most adults actually learn faster and more easily than their teenage counterparts when the relationship between new content and prior experience is shown. Relating new content to an existing frame of reference is an important method of helping learners comprehend and internalize new material. Second, drawing on personal experience helps the learners apply the concepts to their own situations and thereby meet their needs as individuals.

Adjust the pace of instruction. Adults will have different needs for instructional pacing. Some will not keep up if instruction moves along too fast, and others may feel that they are wasting valuable time if instruction moves too slowly.

In a competency-based program, self-pacing is usually built into the design. In more traditional programs, you should be aware of learners' needs and try to find a good balance. For those who need it, you can offer additional help, such as individual review and discussion or use of study guides. For those who move quickly, you can enrich the learning experience through opportunities for more indepth study and supplementary assignments.

Accommodate special/exceptional differences. Adult learners sometimes have physiological and psychological needs related to the aging process that can affect their interaction and the ease with which they learn. You should be sensitive to these needs and make sure the classroom environment is comfortable and conducive to learning. For example:

- Be sure the room is comfortable (i.e., adequate space; furniture comfortable, adult-sized, and comfortably arranged; room temperature neither too hot nor too cold; good lighting: and good ventilation).
- Vary the physical nature of the learning a stivities so that the learners don't spend an entire class session either sitting, standing, or physically exerting themselves.
- Create a relaxed atmosphere in which learners feel free to move around, voice their needs, excuse themselves as necessary, and otherwise make themselves comfortable.

In addition, you should be aware of some learners' **specific physiological conditions** and adjust the physical environment and the instructional techniques accordingly. Examples of such conditions include the following:

- Impaired eyesight
- Impaired hearing
- Immobility (e.g., restricted use of hands due to arthritis; general discomfort or stiffness)
- Intolerance of temperature extremes
- Slower physical responses
- Need for frequent movement to improve circulation or reduce cramping
- Need for frequent bathroom breaks
- Fatigue from working all day

For learners with poor vision, you could do the following: Write larger and make sure they get a clear view of what is going on. Be sure lighting in

the room is good. Provide as many audio supplements (e.g., audiotape cassettes) to your instruction as possible. If using visual techniques, such as the chalkboard, flip chart, or transparencies, don't be too quick to move ahead (e.g., erase the board, turn to a new sheet of paper, or change transparencies). Make sure the learners get handouts of important visuals.

For learners with hearing problems, you could do the following: Speak a little louder, more clearly, and directly toward the learner. Be sure that distracting background noises are kept to a minimum. Use a lot of visual aids in your instruction. Encourage learners to ask speakers to repeat or talk louder when they cannot hear.

You can't assume, however, that adults will always make their needs known. Sometimes they will hide impairments so you should be alert to signs of special instructional needs (e.g., squinting the eyes, cupping the ear, turning an ear toward sound). By being aware of such signs, you can work individually with learners to meet their needs through alternative learning activities or other special arrangements.

You should also be aware of any **sociocultural differences** that learners may have so that you can interpret them correctly, be sensitive to them, and if necessary, accommodate them in your instruction. For example, in oriental cultures, one beckons with the palm down and fingers waving inward; the upturned beckoning finger often used by Americans is likely to offend.

In some cultures, what we consider cheating is considered acceptable; one is, in fact, expected to "cheat" if it can help one's relatives or friends. This, of course, can be a problem when it comes to traditional testing situations. Although a person with these cultural values should be helped to learn American expectations, you as an instructor should recognize the source of the problem and not overreact to an incident of cheating.

Similarly, some Eastern subcultures are disposed to teamwork rather than to working individually. You could accommodate this preference through small-group learning activities, while at the same time helping them to understand that, in this culture, individual work is or may be expected on some things (such as tests).

You may also need to develop some skill (short of English-as-a-Second-Language instruction) in working with people who have limited English proficiency and helping them to develop employment skills. This is critical if you work in an area that has a large immigrant population, for it is the adult education programs that will be called upon to help foreignborn individuals who need to prepare for immediate employment.



Increase Learners' Confidence

For all the reasons we have discussed—negative images of earlier educational experiences, long absences from the learning environment, job displacement caused by changes in technology, midlife crises, and a variety of others—returning adults often lack self-esteem and confidence in themselves as learners. To gain the most from their learning experience in your program and in subsequent learning situations, they will need to increase their self-confidence.

Many of the strategies you will be using for other reasons will also help to build confidence. For example, a participatory environment constantly reinforces the idea that what the learner has to say is important. Using the learner as a resource person gives him or her a chance to put skills to use and be recognized for them. Put another way, nothing succeeds like success. Often, finding through experience that you're not so bad at something can build self-confidence tremendously.

Relating instruction to learners' prior experiences helps to demonstrate how old skills provide a strong foundation for new ones. And dealing with learners as peers (addressing them as equals, sharing personal perspectives) encourages them in developing independence and self-direction. In short, the way you interact with learners on a daily basis can have considerable impact on how they see themselves as learners.

Provide positive reinforcement. Every time you give a word of encouragement, an appreciative nod, or a high rating on a learner's work, the positive reinforcement you are providing helps to build the learner's positive self-image. With adults, you should be careful not to go overboard with lavish praise, for they tend to see through empty flattery in a minute. But immediate, frequent, sincere encouragement on a small scale is quite effective and very much needed.

Some instructors reinforce superior work (perhaps a paper, a report, or a project) by asking the learner's permission to use it as a model with the next class offered (not with peers in the same class, which might be embarrassing).

Provide success experiences. Adults who have recently returned to the classroom and who do not yet have confidence in themselves may need to be gradually brought along to a state of believing in themselves and being able to take risks. By being sensitive to who they are, what they can do now, and what they are willing to do now, you can build on those strengths.

Give learners a chance to succeed by starting with skills they already have and then gradually challenge them to attempt higher-level skills. For example, if a learner is not ready for full participation in a large group, you can provide small-group or even one-to-one opportunities for self-expression. Then, you can expand the size of the group as the individual gains confidence.

Increase Group Cohesion

A sense of group cohesion is important in creating a participatory environment. It makes it easier for learners to take part in group decision making and other group activities. Efforts aimed at generating participation very often will also serve to further cement the cohesiveness of the group. There are also some specific ways you can encourage the group to work together comfortably and with a sense of joint purpose.

Use ice-breaking techniques. At the first session, it is often effective to break the ice with activities that get dialogue started. This will help adults feel more comfortable in the learning environment and participate more actively. Framegames can be effective, as can interactive activities. For example, you might have learners tell about themselves to the person next to them. That person then introduces them to the class, citing a few notable things about them.

Assign group projects. Assigning projects or activities that require learners to work together is a natural way to generate group cohesion. Group discussions, small-group projects, committees, peer tutoring and coaching, simulations, role-plays, joint community surveys, joint planning of a field trip, and many other such team activities can be used to get learners working together.

Use the Nominal Group Technique. The Nominal Group Technique is a structured decision-making strategy designed to generate the greatest amount of input on decisions, with the least amount of personal conflict within the group. There are four main steps in the technique: (1) individuals silently list their ideas in writing; (2) group members share their ideas in round-robin fashion, and they are recorded briefly on a flip chart; (3) each item is briefly discussed by the group, to clarify and evaluate; and (4) the items are rank-ordered or rated by group vote. The steps may be repeated in the same activity.



Provide Needed Support Services

Adult learners bring with them a host of potential needs and problems related to their various life roles. Often, the very situation that has caused them to return to education creates the need. For example, a displaced homemaker who needs to develop saleable skills in order to support her family may have very little income and need day care. An individual who is searching for new career directions may feel tremendous anxiety about the unknown future.

An underemployed worker seeking to upgrade occupational skills may not be able to afford transportation. A recent immigrant trying to learn new job skills may not be proficient in reading or writing the English language. An adult in retraining may have problems associated with midlife, such as identity crisis, a rocky marriage, or teenagers in trouble.

As an instructor, you may be able to help learners when problems arise—through friendship, by linking them with sources of assistance, by helping them learn to solve their own problems, and through career counseling.

Be a friend. One of the things that distinguishes you, as an instructor of adults, from other teachers is the role of friend and counselor. You are nearer in age to your students, and if you are clearly a caring person, they can colate to you as a friend.

It has been said that adult instructors need to be "skilled friends" to their students. They need to have highly developed listening skills. They need to be willing to hear a person's concerns and to deal with the learner as a whole person—a person with other life roles besides that of student.

As a skilled friend to your students, you may also need some basic **counseling** skills. You do not need the skills of a professional counselor, certainly. But you need the ability to talk over a problem, one human being to another, and to understand. You may need to point the person in the right direction to get help.

Sometimes no trained counselor is available and a student really needs someone with whom to talk. If you have shown yourself to be a warm and caring person, you may just be the one the student wants to talk to. In these situations, if a student wants to talk, you need to be there for him or her.

Imagine, for example, that an individual sees you before class and tells you that his mother had a heart attack this week . . . or that he may not be able to concentrate today because his teenage daughter ran away last night . . . or that he has heard he is going to be laid off . . . or whatever. You will need to listen with sincere concern.



However, it is essential that you realize that there is a limit to the extent of your involvement. A truly skillful friend knows the boundaries—when you can help just by lending an ear, and when you need to get some qualified help for the individual. There may be some policies where you teach that govern what you can and can't do in regard to helping individuals with nonacademic problems.

Maintain close linkages with support service personnel. Support services are those services provided to enable learners to attend class and otherwise profit from their education. Referral services deal with pressures and problems external to the educational experience. You should have a list of all the support services available in your institution. They might include such services as the following:

- · Day care
- Transportation
- Financial assistance, credit unions
- Peer support groups (e.g., religious, ethnic, foreign, national)
- Help in identifying and compensating for problems with vision, hearing, and the like
- Remediation
- English-as-a-Second-Language/Limited English Proficiency (ESL/LEP) programs
- Time management counseling
- · Stress management counseling
- Employee assistance programs



- · Personal/social counseling
- Nutritional counseling
- Instruction in test-taking skills
- Career information
- Placement services
- Organizational support for employees (e.g., tuition reimbursement)

You need to stay in contact with representatives of support services such as these so that you have ready access when an individual needs assistance. Depending on your institution's policies, you may be directly responsible for providing certain kinds of support to learners who need it. For example, some institutions require instructors to telephone individuals who have missed two classes in a row to find out why they aren't coming to class. A few programs even require instructors to transport individuals to class if needed.

Refer learners for help. In addition to maintaining contact with support services, you need to stay abreast of assistance groups in your community, what kind of assistance they offer, and to whom. Most large communities distribute directories of social services and other sources of assistance, to which you can refer. Sample 1 shows a simple, locally developed matrix of available services that an instructor could use to determine some general categories of help available from local agencies.

Encourage independent problem solving. There's an old saying, "Feed them, and they'll eat for a day. Teach them how to find food, and they'll eat for a lifetime." This adage certainly applies to the matter of helping people with their problems. Adults who are working on becoming independent learners also need to become independent problem solvers. One of the greatest services you can provide a learner is to teach him or her where to look for help.

However, one could just as easily respond to the saying with, "Yes, but if they're hungry, you have to feed them first. No one can learn on an empty stomach." Learners will depend on you, in various degrees, for help in actually obtaining help. Just as in classroom learning skills, you should be prepared to offer as much assistance as is needed to get immediate help, while at the same time weaning the individual to greater self-reliance in seeking out and obtaining help.

Provide career information. As part of your occupational instruction, you should be providing information on possible careers, career ladders, and similar matters. It may also be appropriate to discuss such matters as what it means to make a midlife career change and how to apply past experience to job hunting efforts in a new field.

At times, you might also need to do a little career counseling with a student—perhaps someone who doesn't really belong in your class, or someone who is concerned about future directions in light of what he or she has learned in your course.²

Provide a resource center. If you have set up a classroom resource center, it will provide a natural means of giving learners information on career opportunities, career decision-making processes, career change issues, adult training and retraining opportunities, adult support group networks, and similar topics.

Learners can help to maintain the resource center by bringing in current employment notices, articles, and other materials for display and sharing. As new items are added to the center, you can draw learners' attention to them with a short announcement during class and invite their to browse during breaks or after class.

Be an Advocate for Adult Learners

As you are modifying the learning environment to meet your students' needs—working hard to provide adequate variety, interest, individualization, and support—you may come across situations that are beyond your control. The room is hot and there's no thermostat. The lighting is poor. The room is at the top of three flights of stairs. The furniture is uncomfortable and in poor repair. There's no parking within miles of the building. There's a buzz coming from the lights that causes half the class to be distracted and irritated.

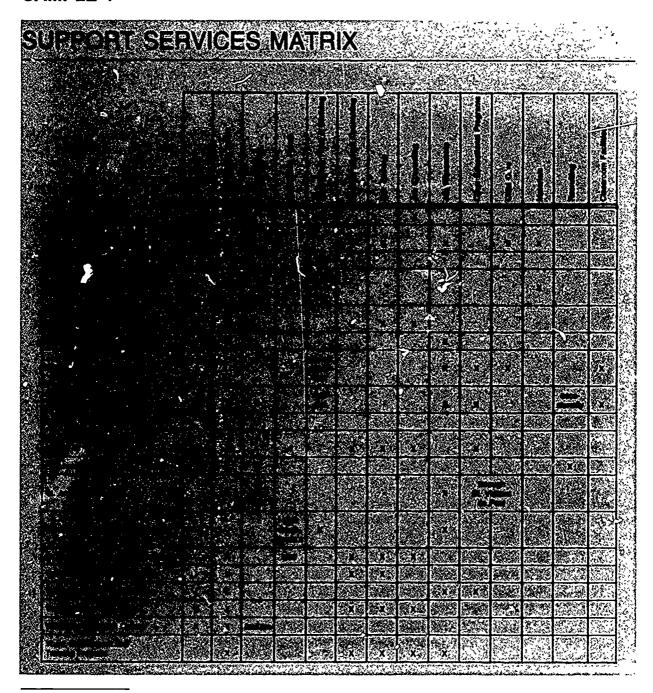
What do you do? If you're used to being assigned poor facilities, you might be tempted to accept it as par for the course. But consider this. An uncomfortable environment may or may not be tolerated by adults. They are often voluntary participants, and if the conditions are bad, you might just end up without students.

Every teacher of adults must learn to be an advocate for his or her students—to go to the administrators or the company managers and say, "We have a problem. We can't treat people like this!" It is your responsibility to inform the administration of problems and to work with them on getting the necessary changes made. There is, of course, a secondary benefit of this course of action. In taking charge and standing up for your students' rights, you will be modeling desirable adult behavior for your students: self-conf. Jent, assertive pursuit of a solution to a problem.



² To gain skill in providing career information and counseling, you may wish to refer to Module F-4, Provide information on Educational and Career Opportunities; and Module L-11, Assist Exceptional Students in Developing Career Planning Skills.

SAMPLE 1



SOURCE: Taken from materials provided by Cuba Miller, Assistant Director, Sequoia Adult School, Redwood City, California.



Finally, you will need to be an advocate for adult learners by encouraging support through internal and external linkages. As you market your program, you will be establishing linkages not only with the internal support services, but with external services, such as job services and the department of social services. By encouraging their support of your program in general and of your students specifically, you will be serving in an advocacy role. You will be ensuring the continued support of a program that serves the needs of adults and ensuring that your students are treated properly by the various agencies.

You may need to take up the cause of one of your students with a certain agency to ensure that he or she doesn't get lost in the bureaucracy. You may need to convince the occupational advisory committee that your program desperately needs new equipment to stay current in the field. You may need to secure their help in identifying a local business willing to give or lend equipment. In these and many other ways, you can make your voice heard in support of adults and adult education programs.





You may wish to arrange through your resource person to visit a classroom or other teaching situation in which a variety of instructional techniques are being used with adult learners. During this visit, you could observe the techniques being put into action. You could also see how adults respond to the various activities.





The following case studies describe how instructors modified the learning environment for adult learners. Read each case study and then **critique in writing** the instructor's performance. Specifically, you should explain (1) the strengths of each instructor's approach, (2) the weaknesses of each instructor's approach, and (3) how each instructor should have modified the learning environment.

CASE STUDIES

Case Study 1:

"Good evening. My name is Mr. Guyer; I've spelled it on the board for you. As you probably know, this is the first session of an 11-week course in day-care administration. I'm going to cover a lot of material in this course, and I'm sure that you'll find it both interesting and challenging. If you work hard and keep up with the readings, I'm sure you'll do just fine.

"Before we get started, I'd like to get a few housekeeping details out of the way. We'll meet for an hour and a half each class, with a break about halfway through the class. I noticed as I came down the hall that a couple of you smoke, and I imagine you'd feel more comfortable if you can smoke during class (I know I would!), so I'm going to permit smoking during class activities except when we're working with the computers.

"And speaking of comfort, it's pretty hard for everyone to see each other's faces with all of you facing front, so let's take a minute to bring the chairs around in a circle. Let's see on the class roster here . . . who's Bob? and Hank? Great. Will you give me a hand with the chairs? Thanks."



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Case Study 2:

Annette Stribling was meeting with the office management class for the first time. To get things started, she passed out 3×5 cards and asked them to jot down the following information about themselves:

- Why they are taking the course and what they expect to get out of it
- What their main occupational experiences have been
- Three significant facts about themselves not directly related to the course

Then she had the learners exchange cards with the person next to them and conduct three-minute interviews with each other to find out more about the person. At the end of that time, each learner was asked to introduce the person he or she had interviewed to the rest of the class and to tell a little about them

Following the introductions, Annette collected the cards for her own information and passed out the course syllabus and reading list. After a short description of the goals of the course and the types of activities she had planned, Annette assigned the first reading and dismissed the class.

Case Study 3:

At the fourth class session, Annette Stribling began by asking the learners for some feedback.

"How do you feel the course is going? What do you like? What don't you like? Do you have any preblems with what we're doing that we should work out? I'd like to hear from each of you in turn, to be sure everyone has their say. Dick, how about you going first?"

After Dick's response, Annette called on each learner and jotted pros and cons and other key points on the board as they were mentioned. Mrs. Boland, as usual, wouldn't say anything, but otherwise everyone gave Annette some good ideas.

A discussion of the list on the board grew out of the activity, because it seemed that most of the cons had to do with the kinds of learning activities being used. The general consensus was that they would it is in have more activities in which they could apply what they were learning.

Annette encouraged them to suggest some learning activities, and by the end of the session, they had developed a plan for the remainder of the course. Annette knew she would have to do some quick preparations for the new activities, but she realized that it was worth it because the class seemed quite enthusiastic about the plans.



Case Study 4:

Mike Langley's class was finishing a group discussion on job-hunting problems and solutions. He was about to go right into an illustrated talk on letters of application and follow-up, to be followed by small-group work involving practice letter writing and peer critique. However, he noticed that Nelson May was shifting in his seat a lot and kept bending and straightening his right leg.

So, realizing that the class had been sitting a long time and Nelson's sciatica was probably bothering him, Mike decided to change the agenda a little.

"Well, we came up with a lot of suggestions for each other about finding job leads. If anyone has other problems they would like the group to think about, why don't you jot them on a piece of paper and give them to me after class, and I'll bring them up at the next meeting.

"Now, if you don't mind, I'd like to take an early break today, stretch a little, and get some coffee out of the machine. Then we'll get together in small groups to continue the interview role-plays we began last time. When you get back in the room, I'll have handouts for you to guide the activity."





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Compare your written critiques of the instructors' performance with the model critiques given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same major points.

MODEL CRITIQUES

Case Study 1:

It is admirable that Mr. Guyer is so concerned about the comfort of the learners and that he seems to recognize the need for their feeling as relaxed as possible during class sessions. Rearranging the chairs is one good way to promote a relaxed environment.

However, rearranging furniture is not likely to go very far in establishing adult-to-adult rapport with the learners after the beginning Mr. Guyer has made. His actions betray an attitude of not really respecting the learners as mature individuals. First, there's the matter of names: he is Mr. Guyer, but they are Bob and Hank. This differentiation right away puts distance between the instructor and the class. And to reinforce this distance, he speaks in terms of "!" and "you"—never "we."

Then there are Mr. Guyer's very first comments, about keeping up with the readings and doing just fine. These condescending remarks would make most adults feel as if Mr. Guyer were really talking down to them.

To make matters worse, he missed a good opportunity to create a participatory environment by not involving the class in deciding on class management procedures. Although he and a couple of others might have wanted to smoke, it is just as likely that some members of the class would object, and this should have been discussed. The same is true of breaks.

On the brighter side, Mr. Guyer is evidently planning to use computers in the course, and this should be helpful to individuals who have not had a chance to become comfortable with them.

Case Study 2:

Annette's ice-breaking technique was well planned and served several purposes. First, it got the class started in a relaxed fashion, with all members participating. Undoubtedly, the learners left this class recognizing that it was not going to be just another series of lectures. (Although we cannot tell how the learners responded to the exercise, one hopes that Annette was sensitive to individual reactions and was ready to provide alternative ways of participating if necessary.)

Second, it helped the learners get to know each other, which would contribute to group cohesion. And third, it provided Annette with information about her students that would enable her both to consider the design of the course in relation to their needs and expectations and to draw upon their experiences during the course.

Unfortunately, Annette did not **use** the input she got about learners' needs and expectations in adjusting the design of the course, nor does it appear that she ever meant to. There she was with a syllabus and reading list already prepared, the decisions apparently irrevocable.

A group discussion would have been a natural follow-up to the ice-breaker. It would have encouraged further participation and exploration of the learners' and the instructor's experience and interests. Such a discussion also would have been a good time to get their input on course content, instructional activities, readings, and so on. As it is, it appears that they have no choices, no say in what kind of experiences this course will involve.



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Case Study 3:

Annette's effort to monitor learners' satisfaction at this class meeting may help compensate for ignoring their input earlier. Perhaps the outcomes of the discussions will make her realize the importance of inviting learners' suggestions from the very beginning.

The ways in which Annette did a number of things are commendable. She involved the class in making decisions about the remainder of the course. She gave them multiple learning options. She used a visual aid to guide the discussion. And she was willing to do the extra work to make it all happen. Her obvious interest in the learners' needs makes her insensitivity to Mrs. Boland—and perhaps other learners as well—all the more surprising.

If Mrs. Boland has a history of never speaking in class, she obviously is not comfortable with the class, and one suspects that something is not being done that should be. Annette should be talking to her to try to find out what the problem is, not just continually accepting her silence. Perhaps positive reinforcement, carefully planned success experiences, or personal encouragement would help Mrs. Boland feel more sure of herself.

If Annette was aware of Mrs. Boland's discomfort about speaking up in class, it was insensitive to set up the discussion in the way she did, putting each learner on the spot. In fact, other learners might also have preferred not to participate in this manner. Participation should have been voluntary, and options for giving input in other ways should have been given, such as small-group discussions, one-to-one conferences, and written responses.

Case Study 4:

It's hard to find fault with Mike's performance. For starters, his rapport-building skills are quite good. His tone is relaxed, he's sensitive to the learners' needs, he uses "we" to reinforce the common ground between instructor and learners, and he acknowledges the value of the suggestions the learners have given each other.

Mike also uses a good mix of instructional strategies, including group discussion, illustrated talk, small-group practice, peer critique, role-play with instruction sheets, and undoubtedly many others. Further, he gives learners options in the manner of their participation, as illustrated by his suggestion that those who have additional suggestions should put them in writing. This would be helpful to any learners who may not have been comfortable talking about their job-hunting problems in the group.

But the most notable qualities Mike has shown in these few minutes are his sensitivity to individual differences and his willingness to be flexible in dealing with them. He made it his business to know that Nelson has problems with his sciatic nerve and that prolonged sitting aggravates the condition. He called for a break to give Nelson a chance to walk around and relieve the discomfort and then substituted an activity that would allow him more freedom to move around as needed. And he was tactful in ascribing the change in agenda to his own needs rather than to Nelson's.

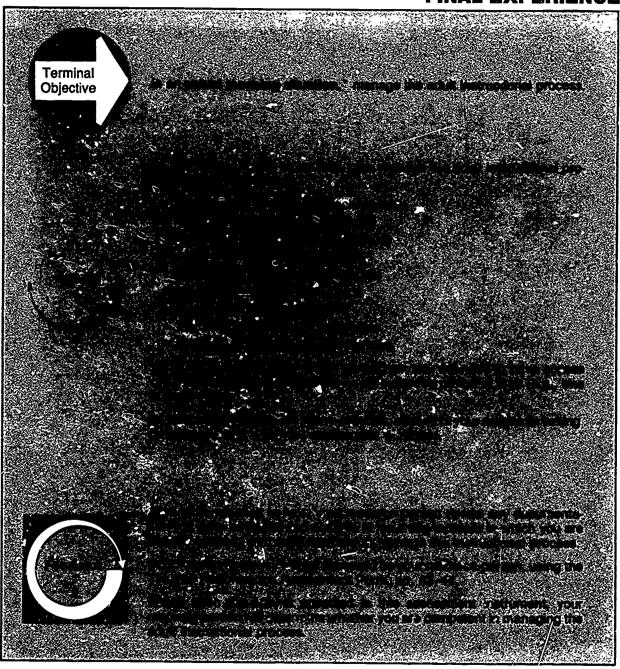
One can assume from this brief episode that Mike has a great deal of respect for people's feelings and that his attitudes help to make him quite successful at working with adults.

Level of Performance: Your written critiques of the instructors' performance should have covered the same major points as the model critiques. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Modifying the Learning Environment for Adults, pp. 24–35, or check with your resource person if necessary.



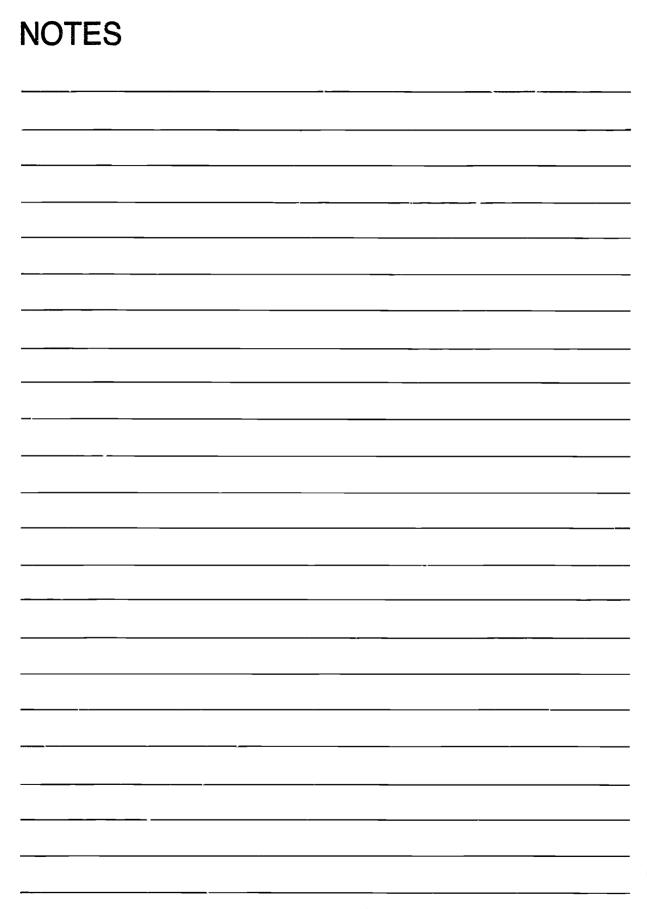
Learning Experience III

FINAL EXPERIENCE



^{*} For a definition of "actual teaching situation," see the inside back cover.







TEACHER PERFORMANCE ASSESSMENT FORM

Manage the Adult Instructional Process (N-5)

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name		
Date	<u> </u>	
Resource Person		

LEVEL OF PERFORMANCE

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រីក V 1.	varying the instructional techniques, the instructor: provided variety in the nature of the learning activities	AIR.	Age	400t	184	Sood At A State of the At A St
	offered, including: a. grouping					
	b. learning modality					
	c. study skiils required	Ц				
	d. type of assignment					
	e. level of conceptual skills required					
	f. learner and instructor roles					
2.	offered the learners alternatives from which to choose					
	establishing aduit-to-adult rapport, the instructor: was sensitive to the multiple roles of learners					
4.	avoided talking down to learners					
5.	created a nontraditional room arrangement					
6.	shared information about self					
7.	demonstrated willingness to meet with students outside class, as well as in class					
	reating a participatory environment, the instructor:					7
8.	involved learners in decisions about course content and management					
9.	involved learners as instructional resources					
10.	monitored learner satisfaction					
in fa 11.	acilitating adult independence, the instructor: helped students learn to learn on their own					
12.	served as a role model of continuing learning					
13.	taught decision-making and problem-solving techniques					



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		MA	A _C	400t	4	& &	Excellent
In ₁ 14.	providing for individual differences, the instructor: provided appropriate materials						
15.	provided varied materials						
16.	related instruction to learners' experiences						
1 7.	adjusted the pace of instruction						
18.	accommodated special/exceptional differences						
In i 19.	ncreasing learners' confidence, the instructor: provided positive reinforcement						
20.	provided success experiences						
ln i 21.	ncreasing group cohesion, the instructor: used ice-breaking techniques						
22.	assigned group activities						
in r 23	providing needed support services, the instructor:						
24	maintained linkages with support service personnel						
25.	referred learners for help as needed						
26.	encouraged independent problem solving						
27.	provided career information						
28.	provided a resource center						
In b 29.	eing an advocate for adult learners, the instructor: acted upon needed changes in the environment						
30 .	encouraged support through internal and external linkages						

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the instructor and resource person should meet to determine what additional activities the instructor needs to complete in order to reach competency in the weak area(s).

ABOUT USING THE NATIONAL CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should enable you to achieve the terminal objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or occupational trainer.

Procedures

Modules are designed to allow you to indivi_ jalize your teacher education program. You need to take Gally those modules confiring skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience and have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) c. mplete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecoridary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would by functioning in an actual teaching situation. If you do not have access to an actual teaching situation when you are taking the module, you can complete the module up to the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may substitute for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity.

Optional Activity or Feedback: An item that is not required but that is designed to **supplement** and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment

N/A: The criterion was not met because it was not applicable to the situation.

None: No attempt was made to meet the criterion, although it was relevant.

Poor: The teacher is unable to perform this skill or has only very limited ability to perform it.

Fair: The teacher is unable to perform this skill in an acceptable manner but has some ability to perform it.

Good: The teacher is abie to perform this skill in an effective manner.

Excellent: The teacher is able to perform this skill \dots a very effective manner.



Titles of the National Center's Performance-Based Teacher Education Modules

Categ A-1	ory A: Program Planning, Development, and Evaluation Prepare for a Community Survey	Category G: School-Community Relations
		G-1 Develop a School-Community Relations Plan for Your Vocational Program
A-2	Conduct a Community Survey	G-2 Give Presentations to Promote Your Vocational Program
A-3	Report the Findings of a Community Survey	G-3 Develop Brochures to Promote Your Vocational Program G-4 Prepare Displays to Promote Your Vocational Program
A-4	Organize an Occupational Advisory Committee	
A-5	Maintain an Occupational Advisory Committee	
A-6	Develop Program Goals and Objectives	
A-7	Conduct an Occupational Ana /sis	Concerning Your Vocational Program
A-8	Develop a Course of Study	G-7 Conduct an Open House
A-9	Develop Long-Range Program Plans	G-8 Work with Members of the Community
A-10	Conduct a Student Follow-Up Study	G-9 Work with State and Local Educators
A-11	Evaluate Your Vocational Program	G-10 Obtain Feedback about Your Vocational Program
		Category H: Vocational Student Organization
Categ	ory B: Instructional Planning	H-1 Develop a Personal Philosophy Concerning
B-1	Determine Needs and Interests of Students	Vocational Student Organizations
B-2	Develop Student Performance Objectives	H-2 Establish a Vocational Student Organization
B-3	Develop a Unit of Instruction	H-3 Prepare Vocational Student Organization Members for Leadership Roles
B-4	Develop a Lesson Plan	H 4 Assist Vocational Student Organization Members in Developing and
B-5	Select Student Instructional Materials	Financing a Yearly Program of Activities
B-6	Prepare Teacher-Made Instructional Materials	H-5 Supervise Activities of the Vocational Student Organization
		H-6 Guide Participation in Vocational Student Organization Contests
Categ	ory C: Instructional Execution	Category I: Professional Role and Development
C·1 Č	Direct Field Trips	
C·2	Conduct Group Discussions, Panel Discussions, and Symposiums	1-1 Keep Up-to-date Professionally
C-3	Employ Brainstorming, Buzz Group, and Question Box Techniques	1-2 Serve Your Teaching Profession
C-4	Direct Students in Instructing Other Students	1-3 Develop an Active Personal Philosophy of Education
C-5	Employ Simulation Techniques	I-4 Serve the School and Community
C-6	Guide Student Study	1-5 Obtain a Suitable Teaching Position
C-7	Direct Student Laboratory Experience	I-6 Provide Laboratory Experiences for Prospective Teachers
Č-8	Direct Students in Applying Problem-Solving Techniques	I-7 Plan the Student Teaching Experience
C.9	Employ the Project Method	1-8 Supervise Student Teachers
C-10	Introduce a Lesson	Category J: Coordination of Cooperative Education
C-11	Summarize a Lesson	J-1 Establish Guidelines for Your Cooperative Vocational Program
C-12	Finploy Oral Questioning Techniques	.' 2 Manage the Attendance, Transfers, and Terminations of Co-op Students
C-13	Employ Reinforcement Techniques	J-3 Enroll Students in Your Co-op Program
C-14		J-4 Secure Training Stations for Your Co-op Program
	Provide Instruction for Slower and More Capable Learners	J-5 Place Co-op Students on the Job
C-15	Present an Illustrated Talk	J-6 Develop the Training Ability of On-the-Job Instructors
C-16	Demonstrate a Manipulative Skill	J-7 Coordinate On-the-Job Instruction
C-17	Demonstrate a Concept or Principle	J-8 Evaluate Co-op Students' On-the-Job Performance
C-18	Individualize Instruction	J-9 Prepare for Students' Related Instruction
C-19	Employ the Team Teaching Approach	J-10 Supervise an Employer-Employee Appreciation Event
C-21	Prepare Bulletin Boards and Exhibits	Category K: Implementing Competency-Based Education (CBE)
C-22		K-1 Prepare Yourself for CBE
C-23	Present Information with Overhead and Opaque Materials	K-2 Organize the Content for a CBE Program
C-24	Present Information with Filmstrips and Slides	K-3 Organize Your Class and Lab to Install CBE
C-25		K-4 Provide Instructional Materials for CBE
C-26	Present Information with Audio Recordings	K-5 Manage the Daily Routines of Your CBE Program
C-27	Present Information with Televised and Videotaped Materials	K-6 Guide Your Students Through the CBE Program
C-28	Employ Programmed Instruction	Category L: Serving Students with Special/Exceptional Needs
C-29	Present Information with the Chalkboard and Flip Chart	4-1 Prepais Yourself to Serve Exceptional Students
		L-2 Identify and Diagnose Exceptional Students
Categ	jory D: Instructional Evaluation	L-3 Plan Instruction for Exceptional Students
D-1	Establish Student Performance Criteria	L-4 Provide Appropriate Instructional Materials for Exceptional Students
D-2	Assess Student Performance Knowledge	L-5 Modify the Learning Environment for Exceptional Students
D-3	Assess Student Performance. Attitudes	L-6 Promote Peer Acceptance of Exceptional Students
D-4	Assess Student Performance Skills	L-7 Use Instructional Techniques to Meet the Needs of Exceptional Students
D-5	Determine Student Grades	L-8 Improve Your Communication Skills
D-6	Evaluate Your Instructional Effectiveness	L-9 Assess the Progress of Exceptional Students
		L-10 Counsel Exceptional Students with Personal-Social Problems
Cated	ory E: Instructional Management	
E-1	Project Instructional Flesource Needs	
E-2	Manage Your Budge ing and Reporting Responsibilities	
E-3	Arrange for Improvement of Your Vocational Facilities	L-13 Promote Your Vocational Program with Exceptional Students
E-4	Mairtain & Filing System	Category M: Assisting Students in Improving Their Basic Skills
	Provide for Student Safety	M-1 Assist Students in Achieving Basic Reading Skills
F.5	Provide for the First Aid Needs of Students	M-2 Assist Students in Developing Technical Reading Skills
E-5 F-6		M-3 Assist Students in Improving Their Writing Skills
E-6		M-4 Assist Students in Improving Their Oral Communication Skills
E-6 E-7	Assist Students in Developing Self-Discipline	
E-6 E-7 E-8	Organize the Vocational Laboratory	
E-6 E-7 E-8 E-9	Organize the Vocational Laboratory Manage the Vocational Laboratory	M-5 Assist Students in Improving Their Math Skills
E-6 E-7 E-8	Organize the Vocational Laboratory	M-5 Assist Students in Improving Their Math Skills M-6 Assist Students in Improving Their Survival Skilis
E-6 E-7 E-8 E-9 E-10	Organize the Vocational Laboratory Manage the Vocational Laboratory Combat Problems of Student Chemical Use	M-5 Assist Students in Improving Their Math Skills M-6 Assist Students in Improving Their Survival Skilis Category N: Teaching Adults
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E-6 E-7 E-8 E-9 E-10 Categ	Organize the Vocational Laboratory Manage the Vocational Laboratory Combat Problems of Student Chemical Use pory F: Guldance Gather Student Data Using Format Data-Collection Techniques	M-5 Assist Students in Improving Their Math Skills M-6 Assist Students in Improving Their Survival Skilis Category N: Teaching Adults N-1 Prepare to Work with Adult Learners N-2 Market an Adult Education Program
E-6 E-7 E-8 E-9 E-10 Categ F-1 F-2	Organize the Vocational Laboratory Manage the Vocational Laboratory Combat Problems of Student Chemical Use gory F: Guldanc Gather Student Data Using Format Data-Collection Techniques Gulher Student Data Through Personal Contacts	M-5 Assist Students in Improving Their Math Skills M-6 Assist Students in Improving Their Survival Skilis Category N: Teaching Adults N-1 Prepare to Work with Adult Learners N-2 Market an Adult Education Program N-3 Determine Individual Training Needs
E-6 E-7 E-8 E-9 E-10 Categ F-1 F-2 F-3	Organize the Vocational Laboratory Manage the Vocational Laboratory Combat Problems of Student Chemical Use Jory F: Guldance Gather Student Data Using Formal Data-Collection Techniques GLither Student Data Through Personal Contacts Use Conferences to Help Meet Student Needs	M-5 Assist Students in Improving Their Math Skills M-6 Assist Students in Improving Their Survival Skilis Category N: Teaching Adults N-1 Prepare to Work with Adult Learners N-2 Market an Adult Education Program N-3 Determine Individual Training Needs N-4 Plan Instruction for Adults
E-6 E-7 E-8 E-9 E-10 Categ F-1 F-2	Organize the Vocational Laboratory Manage the Vocational Laboratory Combat Problems of Student Chemical Use gory F: Guldanc Gather Student Data Using Format Data-Collection Techniques Gulher Student Data Through Personal Contacts	M-5 Assist Students in Improving Their Math Skills M-6 Assist Students in Improving Their Survival Skilis Category N: Teaching Adults N-1 Prepare to Work with Adult Learners N-2 Market an Adult Education Program N-3 Determine Individual Training Needs

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education
Performance-Based Teacher Education. The State of the Art, General Education and Vocational Education

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmler Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586

